

5 WMA Restoration Strategies

The STEPL model predicts an increase in the pollutant loading from existing conditions to future conditions without projects for the Accotink Creek watershed of 5.6 percent for Total Suspended Solids, 4.9 percent for Total Nitrogen and 4.4 percent for Total Phosphorus. The Long Branch South, Mainstem 7, Hunters Branch and Long Branch North WMAs have the largest modeled increases for these three pollutants. All other WMAs in the watershed increase less than five percent for all pollutants. The tidally-influenced Potomac WMA is the exception.

The following section provides a discussion of the impairments affecting each WMA in the plan and the proposed solutions to those impairments. Impairments were identified through field assessment, modeling and the results of subwatershed ranking. Additional information may be found in Appendix B, Technical Documents.

5.1 Bear Branch

All or most of the area for seven of the eleven subwatersheds in the Bear Branch WMA are within the boundaries of the Town of Vienna. Two of the subwatersheds were in the highest priority for the overall Accotink Creek watershed.

5.1.1 Structural Projects

5.1.1.1 10-Year Projects

AC9182 Stormwater Pond Retrofit

A retrofit is proposed for the existing pond treating the runoff from a high-density residential area in Chesterfield Meadows Section 1 neighborhood. Recommendations include a new control structure, extending the flow path and creating a new outfall, which would be reconnected to the wetland.

AC9183 New Stormwater Pond

This is a potential parking lot retrofit at Kena Shriners Temple. Field assessment identified a large amount of untreated impervious area. The proposed facility would be located in the grassy area on the southwest portion of the site. The existing storm drain pipe will be cut so that it outfalls into the proposed facility for treatment and a riser structure will be used to provide detention before the water is discharged into the stream.

AC9185 New Stormwater Pond

This is a potential site for new pond behind Silent Valley Drive that would treat the runoff from high-density residential homes in the Covington neighborhood. A riser structure and embankment will be used to provide the water quality and water quantity treatment.

AC9225 Stream Restoration Project

This project would retrofit the stream channel on the upstream side of I-66 at Southside Park. The channel is over-widened with moderated to severe erosion. Restoration would include reducing the channel dimensions, raising the bed elevation and installing grade controls.

5.1.1.2 25-Year Projects

AC9184 Stormwater Pond Retrofit

This existing project, located along Barkley Gate Lane and Royal Doulton Lane, would include some excavation of the existing ponds for additional storage. Tree removal along the embankment and plantings downstream are also recommended.

AC9315 Area-Wide Drainage Improvements

The untreated medium- and low-density residential areas in Bear Branch should be treated for runoff by installing tree box filters at the existing stormwater inlets.

AC9408 Culvert Retrofit

This project is proposed at three different crossings within Vienna's South Side Park: Kingsley Road, Yeonas Drive and Cottage Street. Recommendations include creating a micropool followed by a pool with wetland plantings.

5.1.2 Non Structural Projects

AC9900 Community Outreach/Public Education - Stenciling

This community-wide project involves marking the storm drains within the community. The stencil marking will educate the public, reduce dumping and reduce the amount of litter and pollutants that enter the storm drain system. The location identified for implementation of this project is Armistead Park.

AC9913 Dumpsite/Obstruction Removal - Dumpsite/Obstruction

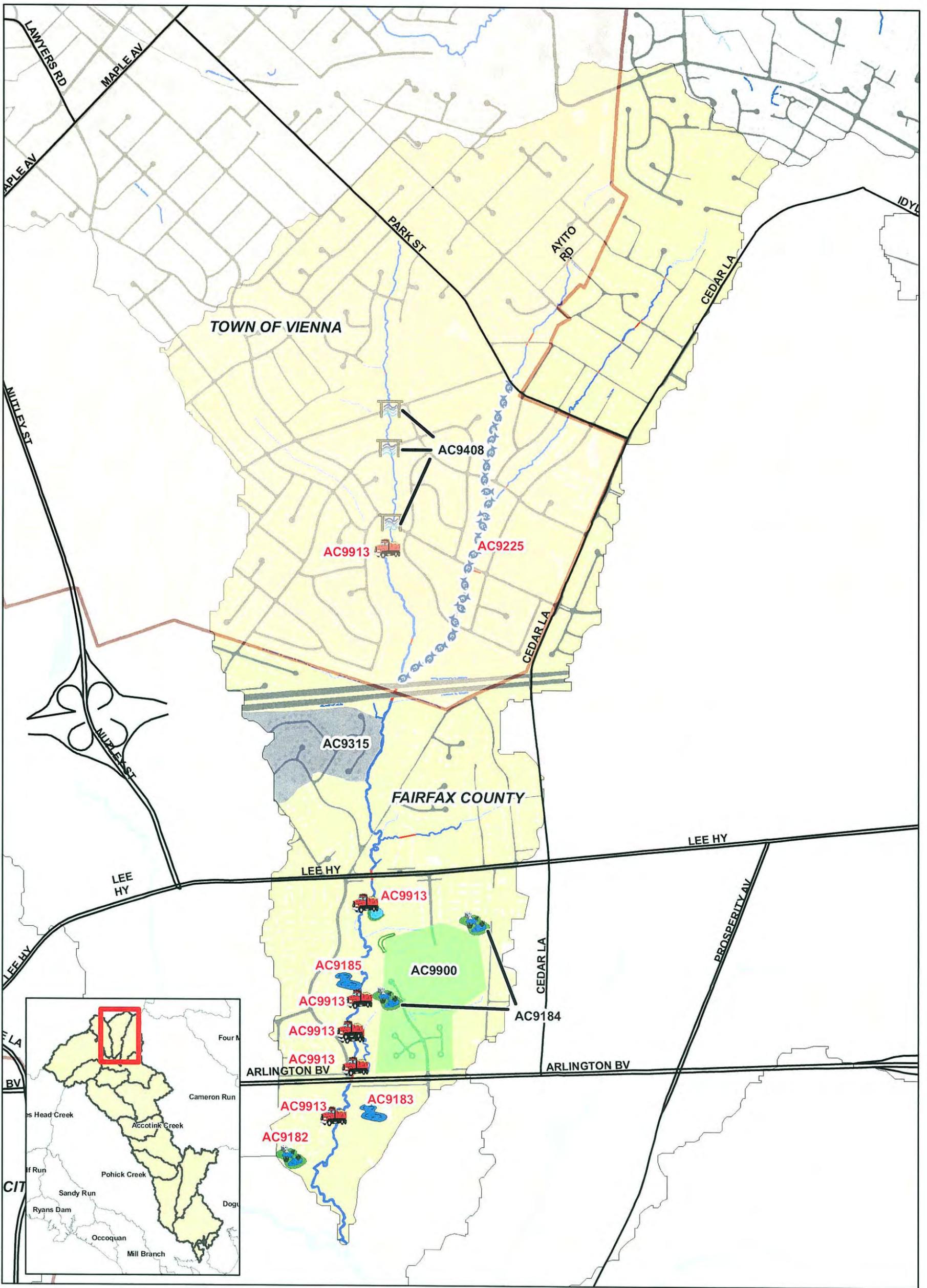
Seven sites were identified with significant obstructions or dumpsites during the stream assessment. This project would be a community-wide program to remove obstructions and clean up dumpsites in the stream network. These sites are comprised of trees and debris blocking fish passage, and trees and yard waste within the stream.

Table 5-1: Bear Branch Projects

Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9182	Stormwater Pond Retrofit	AC-BB-0000	Chesterfield Meadows Section 1	Water Quantity	County - FCPA	1 – 10
AC9183	New Stormwater Pond	AC-BB-0000	Kena Shriners	Water Quality and Quantity	Private - Temple	1 – 10
AC9185	New Stormwater Pond	AC-BB-0005	Covington	Water Quality and Quantity	Private - HOA	1 – 10
AC9225	Stream Restoration	AC-BB-0030	Between Desale and I-66	Water Quality	Private and Town of Vienna	1 – 10
AC9184	Stormwater Pond Retrofit	AC-BB-0005	Behind Barkley Gate Ln and Modano Pl	Water Quality and Quantity	Private	11 – 25
AC9315	Area-wide Drainage Improvements	AC-BB-0010	Between Elsemore St and Glenvalder Dr	Water Quality	Private	11 – 25
AC9408	Culvert Retrofit	AC-BB-0020	<u>Kingsley Road, Yeonas Drive and Cottage Street</u>	Water Quality	County	11 – 25

Non-Structural Projects					
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner
AC9900	Community Outreach/Public Education	Multiple	Multiple	Water Quality	Multiple
AC9913	Dumpsite/Obstruction Removal	Multiple	Multiple	Water Quality	Multiple

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| Buffer Restoration | New Stormwater Pond | Community Outreach/Public Education |
| Stream Restoration | Outfall Improvement | Area-wide Drainage Improvement |
| BMP/LID | Stormwater Pond Retrofit | Land Conservation Project |
| Culvert Retrofit | Other | Flood Protection/Mitigation |
| Dumpsite/Obstruction Removal | | Inspection/Enforcement Enhancement |
| | | Rain Barrel Program |
| | | Street Sweeping Program |
| | | Studies, Surveys and Assessments |
- Implementation timeframe denoted by project label color. Red = 0-10 years Black = 11-25 years.

Map 5.1

WMA: Bear Branch
Proposed Projects

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5.2 Crook Branch

The results of the subwatershed strategy analysis showed that all except one subwatershed in Crook Branch appeared to be impaired in one form or another. One subwatershed located in the eastern portion of the WMA was in good condition primarily due to the influence of good forest and wetland coverage. In terms of overall ranking, Crook Branch had five of the highest priority subwatersheds in the overall Accotink Creek watershed.

5.2.1 Structural Projects

5.2.1.1 10-Year Projects

AC9174 Stormwater Pond Retrofit

This project is a retrofit of the existing dry pond with level splitter treating the runoff from the Jewish Community Center. The retrofit would modify the riser structure, remove the concrete low-flow channels and replace them with meandering low flow channels.

AC9175 Stormwater Pond Retrofit

Runoff from Hunters Glen HOA is treated by an existing dry pond. A retrofit is also proposed for this existing dry pond treating runoff from the Ridgelea Hills neighborhood and of the existing dry pond at Bethlehem Church. Proposed project recommendations include a new riser/control structure, excavating for additional storage and adding a plunge pool to each inflow.

AC9221 Stream Restoration Project

This project is a stream restoration behind Colesbury Place. Restoration of this channel will focus on creating a nested channel, in which the floodplain and banks of the current channel will be regraded to allow for a new floodplain at an elevation lower than the original floodplain.

AC9222 Stream Restoration Project

There are areas of significant erosion along the length of the stream in this area. This stream restoration project would involve regrading and stabilizing the eroded stream banks with armor-in-place techniques, grade controls to dissipate energy and installation of stone toe protection to ensure future bank stability.

AC9312 Area-Wide Drainage Improvements

The low- and medium-density residential areas downstream of dry pond 0200DP should be treated for runoff by implementing area-wide drainage improvements. Tree box filters, rain gardens, and vegetated swales would be installed to increase the treatment in this area.

AC9313 Area-Wide Drainage Improvements

The low- and medium-density residential area has no stormwater management facilities and would benefit by implementing area wide drainage improvement. Tree box filters, rain gardens, and vegetated swales would be installed to increase the treatment in this area.

AC9546 New BMP/LID

Accotink Creek Watershed Management Plan

This proposed project at Mantua Elementary School involves repairing the vegetation and bank problems with existing bioretention areas and adding another bioretention area.

AC9547 New BMP/LID

This bioretention project would treat the rooftop runoff from the Providence Presbyterian Church and the roadway runoff on Pixie Court. The downspouts at the rear of the church would be disconnected and routed to the bioretention facility. On Pixie Court, curb extensions would route the roadway runoff into a bioretention facility for treatment.

AC9548 New BMP/LID

This proposed project will use a flow splitter directed to a proposed bioretention, which is sited in open space next to Frontage Road in the Ridgelea Hills neighborhood. This will increase the water quality treatment for the residential, commercial, and roadway runoff.

5.2.1.2 25-Year Projects

AC9176 Stormwater Pond Retrofit

This project is a proposed dry pond retrofit to treat runoff from the Glen neighborhood. Recommendations include excavating to increase storage volume, removing the concrete channel and modifying the riser.

AC9220 Stream Restoration Project

There is severe erosion for approximately 100 feet in the stream behind Glade Hill Road. Restoration is recommended along the stream channel.

5.2.2 Non Structural Projects

AC9803 Buffer - Buffer

This project, located downstream of Prosperity Avenue, involves the restoration of the impaired stream buffer.

AC9804 Buffer - Buffer

This project, located upstream of Prosperity Avenue, involves the restoration of the impaired stream buffer.

AC9900 Community Outreach/Public Education - Stenciling

This community-wide project involves marking the storm drains within the community. The stencil marking will educate the public, reduce dumping and reduce the amount of litter and pollutants that enter the storm drain system. Several locations were identified for implementation of this project, including Mantua Hills, Brian Acres, Skybrook, Sunnyhill Hill and Westchester.

AC9907 Community Outreach/Public Education - Lawn care

Accotink Creek Watershed Management Plan

This project would provide community-wide outreach to homeowners to provide education and guidance on lawn care practices that would potentially reduce pollutants in stormwater runoff. The upland reconnaissance identified one neighborhood, Ridgelea Hills, which could be targeted with this effort.

AC9913 Dumpsite/Obstruction Removal - Dumpsite/Obstruction

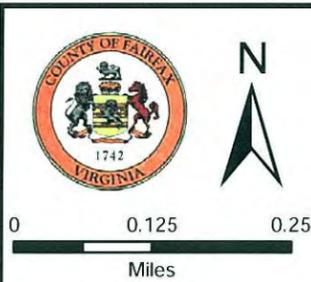
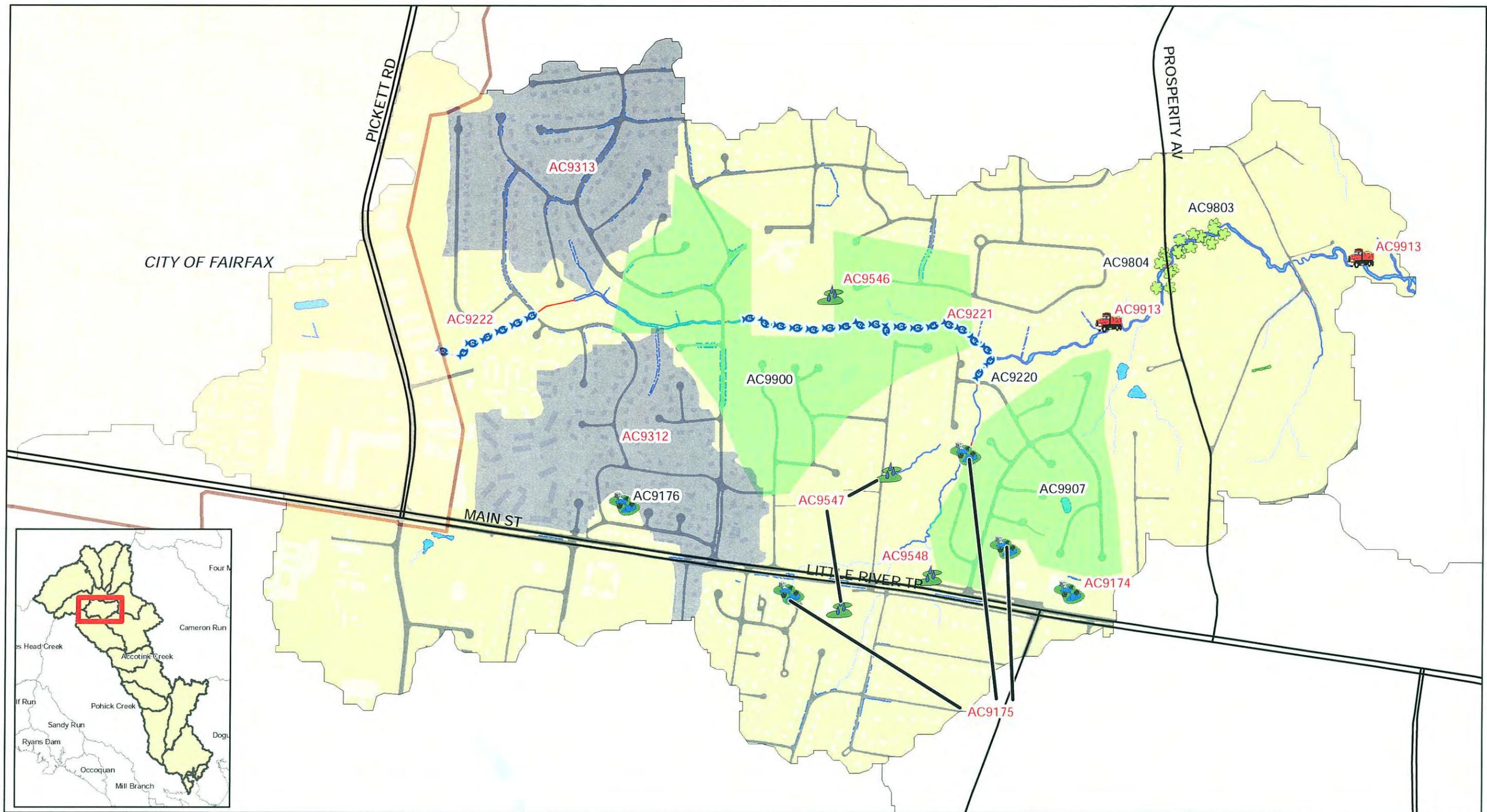
Two sites were identified with significant obstructions or dumpsites during the stream assessment. This project would be a community-wide program to remove obstructions and clean up dumpsites in the stream network. These sites are comprised of debris blocking fish passage and trees within the stream.

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Table 5-2: Crook Branch Projects

Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9174	Stormwater Pond Retrofit	AC-CR-0005	Greater Washington Jewish Community Foundation	Water Quality	Private	1 – 10
AC9175	Stormwater Pond Retrofit	AC-CR-0010	Hunters Glen, Ridgelea Hills, Bethlehem Lutheran Church	Water Quality	Private - HOA	1 – 10
AC9221	Stream Restoration	AC-CR-0015	Between Colesbury Pl, Skyview Ln, Petros Ct and Glenbrook Ct	Water Quality	Private	1 – 10
AC9222	Stream Restoration	AC-CR-0025	Between Tovito Dr , Mathy Dr and Persimmon Cir	Water Quality	Private and HOA	1 – 10
AC9312	Area-wide Drainage Improvements	AC-CR-0020	Within the Westchester and Briars of Westchester Neighborhoods	Water Quality	Private - Residential	1 – 10
AC9313	Area-wide Drainage Improvements	AC-CR-0030	Within the Langhome Acres Neighborhood	Water Quality	Private - Residential	1 – 10
AC9546	BMP/LID	AC-CR-0015	Mantua Elementary School	Water Quality	County - FCPS	1 – 10
AC9547	BMP/LID	AC-CR-0010	Providence Presbyterian Church and Pixie Ct	Water Quality	Private and State - VDOT	1 – 10
AC9548	BMP/LID	AC-CR-0010	Along Frontage Road	Water Quality	Private - HOA	1 – 10
AC9176	Stormwater Pond Retrofit	AC-CR-0020	Behind Briary Ln	Water Quality and Quantity	Private	11 – 25
AC9220	Stream Restoration	AC-CR-0010	Downstream of Glade Hill Rd	Water Quality	Private	11 – 25

Non-Structural Projects					
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner
AC9803	Buffer Restoration	AC-CR-0000	Upstream of Prosperity Ave	Water Quality	Private, County
AC9804	Buffer Restoration	AC-CR-0005	Downstream of Prosperity Ave	Water Quality	Private
AC9900	Community Outreach/Public Education	Multiple	Multiple	Water Quality	Multiple
AC9907	Community Outreach/Public Education	Multiple	Multiple	Water Quality	Multiple
AC9913	Dumpsite/Obstruction Removal	Multiple	Multiple	Water Quality	Multiple



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|------------------------------|--------------------------|-------------------------------------|--|
| Buffer Restoration | New Stormwater Pond | Community Outreach/Public Education | Inspection/Enforcement Enhancement Project |
| Stream Restoration | Outfall Improvement | Area-wide Drainage Improvements | Rain Barrel Programs |
| BMP/LID | Stormwater Pond Retrofit | Land Conservation Project | Street Sweeping Program |
| Culvert Retrofit | Other | Flood Protection/Mitigation | Studies, Surveys and Assessments |
| Dumpsite/Obstruction Removal | | | |

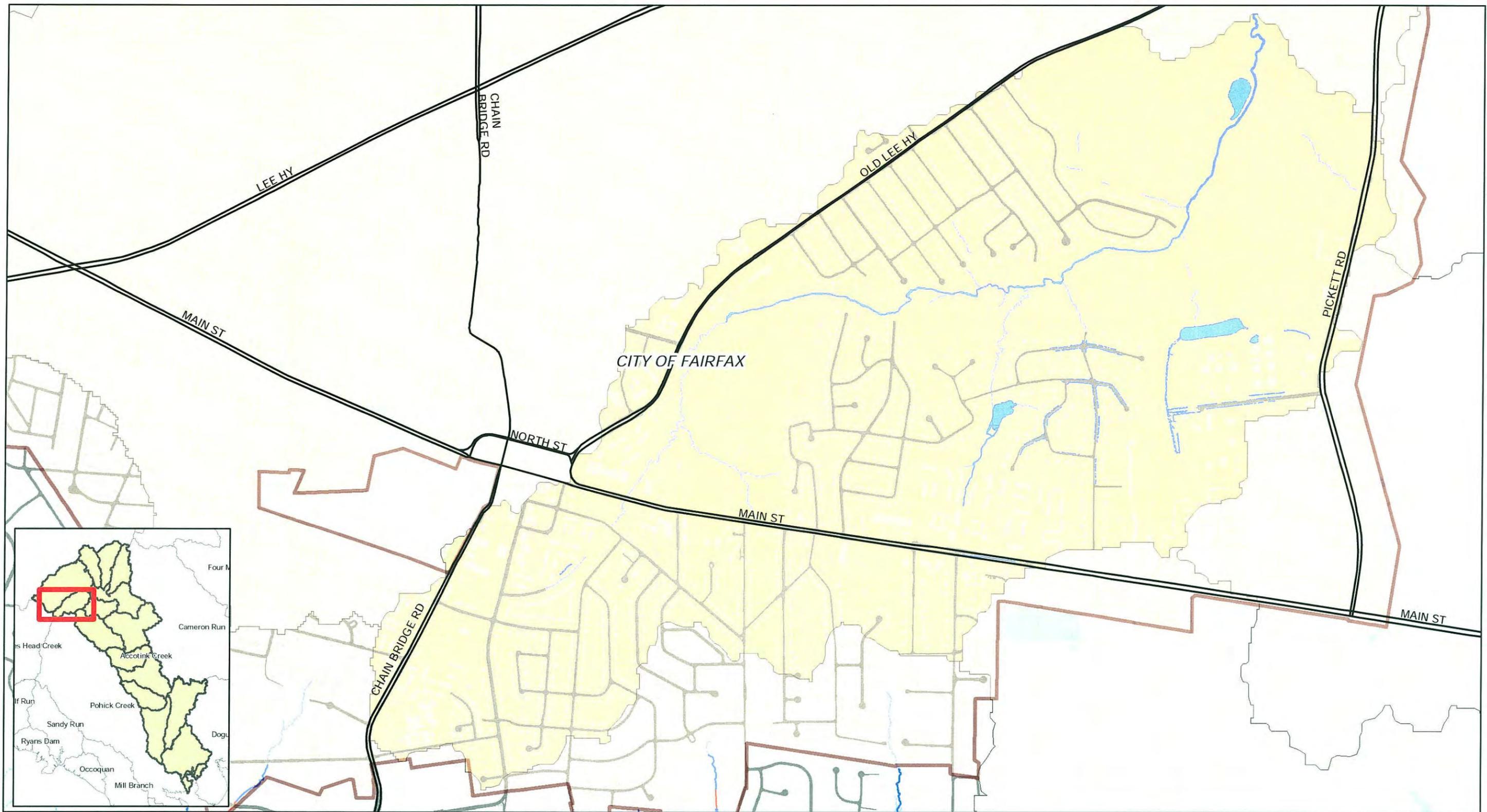
Map 5.2
WMA: Crook Branch Proposed Projects

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5.3 Daniels Run

All the subwatersheds in Daniels Run are within Fairfax City limits. The results of the subwatershed analysis showed that most of them were in good conditions. There were only two subwatersheds that appeared to be impaired in some form and none were in the highest priority for the overall watershed.

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| Buffer Restoration | New Stormwater Pond | Community Outreach/Public Education | Inspection/Enforcement Enhancement Project |
| Stream Restoration | Outfall Improvement | Area-wide Drainage Improvements | Rain Barrel Programs |
| BMP/LID | Stormwater Pond Retrofit | Land Conservation Project | Street Sweeping Program |
| Culvert Retrofit | Other | Flood Protection/Mitigation | Studies, Surveys and Assessments |
| Dumpsite/Obstruction Removal | | | |

Implementation timeframe denoted by project label color. Red = 0-10 years Black = 11-25 years.

Map 5.3

WMA: Daniels Run
Proposed Projects

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5.4 Hunters Branch

The results of subwatershed strategy analysis showed that most of the subwatersheds in the Hunters Branch WMA were in good condition primarily due to influence of forested or undeveloped parcels in Eakin, Towers and Nottoway Parks. All or a part of the area of five of the eight subwatersheds are within the boundaries of Town of Vienna. Only one subwatershed was among the highest priority in the watershed.

5.4.1 Structural Projects

5.4.1.1 10-Year Projects

AC9553 BMP/LID Retrofit

This project is a parking lot retrofit at the Panam Shopping Center. Improvements include removing parking spaces to increase the area adjacent to inlets and installing an underdrain using existing storm drain infrastructure for overflow.

5.4.1.2 25-Year Projects

AC9186 New Stormwater Pond

This potential project is for a new pond behind Vienna Moose Lodge on Court House Road. This pond will increase storage and improve the water quality in the downstream channel.

AC9554 New BMP/LID

This proposed project is a parking lot retrofit to treat the runoff at Fairfax Metro Way. The pavement shows significant oil deposits. Oil-grit separators would be beneficial. A dry swale along the green space between parking rows is also proposed to treat the runoff from the parking lot.

AC9555 New BMP/LID

Potential bioretention in parking lots and near tennis courts at Nottoway Park. This will improve the water quality of the parking lot runoff as well as provide an educational opportunity.

AC9556 New BMP/LID

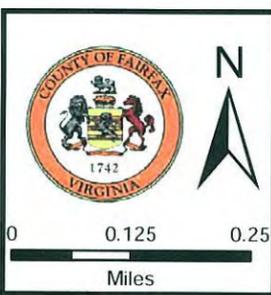
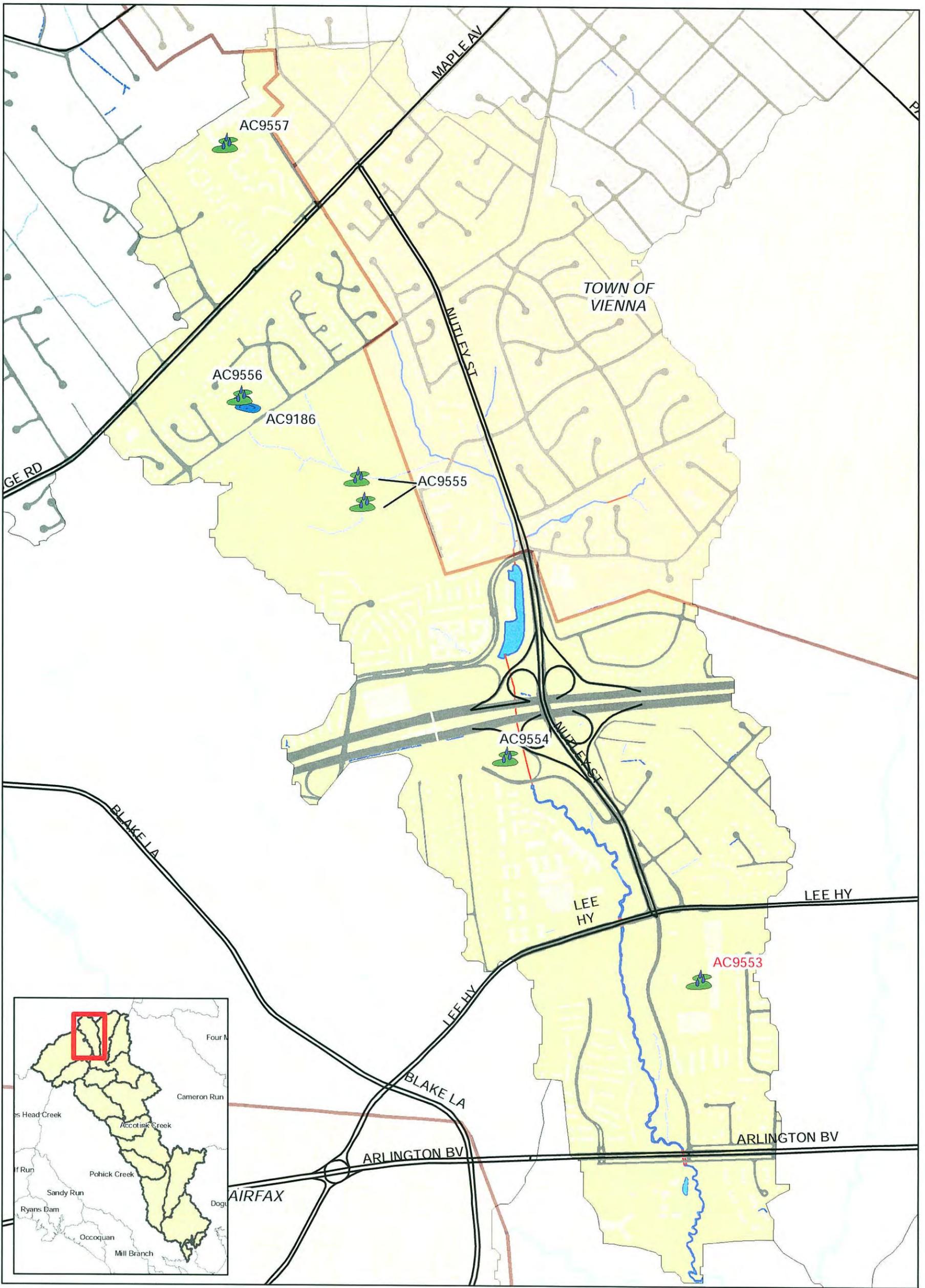
A parking lot retrofit is recommended at the Vienna Moose Lodge by improving existing inlets to add water quality.

AC9557 New BMP/LID

This is a proposed project at Madison High School. Tree box filters are proposed for the parking lot to improve the water quality of the runoff.

Table 5-3: Hunters Branch Projects

Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9553	BMP/LID	AC-HB-0005	Panam Shopping Center	Water Quality	Private	1 - 10
AC9186	New Stormwater Pond	AC-HB-0025	Vienna Moose Lodge	Water Quality and Quantity	Private	11 - 25
AC9554	BMP/LID	AC-HB-0010	Washington Metropolitan Parking lot on Nutley St	Water Quality	Public	11 - 25
AC9555	BMP/LID	AC-HB-0025	Nottoway Park	Water Quality	County-FCPA	11 - 25
AC9556	BMP/LID	AC-HB-0025	Vienna Moose Lodge	Water Quality	Private	11 - 25
AC9557	BMP/LID	AC-HB-0035	Madison High School	Water Quality	County-FCPS	11 - 25



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|------------------------------|--------------------------|-------------------------------------|
| Buffer Restoration | New Stormwater Pond | Community Outreach/Public Education |
| Stream Restoration | Outfall Improvement | Area-wide Drainage Improvement |
| BMP/LID | Stormwater Pond Retrofit | Land Conservation Project |
| Culvert Retrofit | Other | Flood Protection/Mitigation |
| Dumpsite/Obstruction Removal | | Inspection/Enforcement Enhancement |
| | | Rain Barrel Program |
| | | Street Sweeping Program |
| | | Studies, Surveys and Assessments |
- Implementation timeframe denoted by project label color. Red = 0-10 years Black = 11-25 years.

Map 5.4

WMA: Hunters Branch
Proposed Projects

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5.5 Long Branch Central

Conditions in Long Branch Central were highly variable. A significant number of subwatersheds in the WMA were in good condition primarily due to the influence of undeveloped areas of Lake Accotink, Rutherford, Olde Forge and Long Branch Parks with good forest and wetland coverage. However, in terms of overall ranking, Long Branch Central had seven of the highest priority subwatersheds in the watershed, generally influenced by the amount of untreated residential land use.

5.5.1 Structural Projects

5.5.1.1 10-Year Projects

AC9144 New Stormwater Pond

There is potential for a new wet pond behind Thames Street in the Kings Park neighborhood. Field assessments indicated the inlet or low flow channel was heavily eroded and disconnected from the basin floodplain. Recommendations include a riser connected to the existing culvert and some excavation.

AC9147 New Stormwater Pond

A new stormwater pond is proposed in the grass field to provide storage and capture runoff at the Kings Park Shopping Center. The existing storm drains would be used for inflow and the new riser would connect to the existing storm drain under Braddock Road.

AC9148 New Stormwater Pond

An extended detention pond is proposed adjacent to the outfall to provide channel erosion control and water quality volume storage for the runoff from Springbrook Forest neighborhood. The proposed project recommendations include an embankment and new riser structure.

AC9151 Stormwater Pond Retrofit

Propose to retrofit two dry ponds, located near the Long Branch Swim and Raquet Club, to achieve channel erosion control. Recommendations include installing a forebay and micropool, adding new control structures and replacing the concrete channel with a wet swale. The downstream channels should also be stabilized.

AC9158 Stormwater Pond Retrofit

The existing dry pond treating runoff from a section of Somerset South seems to be functioning as a shallow wetland at the lower end of pond. Proposed project recommendations include installing a plunge pool and micropool, installing a new riser and creating a meandering low flow channel.

AC9208 Stream Restoration Project

This stream restoration project is located behind King David Boulevard. Field crews noted isolated pockets of moderate to severe bank erosion on outside meanders, some of which are encroaching on private property. Restoration efforts would include reducing the channel dimensions, installing grade controls, and stabilization techniques.

Accotink Creek Watershed Management Plan

AC9209 Stream Restoration Project

This project in Long Branch Park involves the restoration of moderate to severe erosion within the stream channel and at a storm drain outfall. As part of this restoration, the storm drain outfall will be corrected, the stream banks will be stabilized with armor-in-place techniques and the stream bed elevation will be raised to encourage fish passage.

AC9305 Area-Wide drainage improvements

Area-wide drainage improvements are recommended for the medium-density residential area by implementing a hybrid project that includes installing tree box filters and rain gardens.

AC9306 Area-Wide Drainage Improvements

There are no existing stormwater management facilities in the subwatershed so area-wide drainage improvements are recommended to treat the runoff from the medium-density residential area in the Willow Woods neighborhood. Rain gardens and tree box filters would be used to improve the water quality of the runoff.

AC9307 Area-Wide Drainage Improvements

This project recommends treating the runoff for the medium density residential area downstream of dry pond 1022DP by implementing area-wide drainage improvements. Tree box filters and rain gardens would improve the water quality of the runoff flowing to downstream waters.

AC9308 Area-Wide Drainage Improvements

Area-wide drainage improvements are recommended to treat the runoff from the medium-density residential area in the Long Branch neighborhood by implementing a hybrid project that includes installing tree box filters and rain gardens.

AC9404 Culvert Retrofit

A culvert retrofit is proposed under Red Fox Drive to provide storage above the embankment and control the discharge of the small, high frequency events for channel erosion control.

AC9406 Culvert Retrofit

This site is a culvert that can be retrofitted located upstream of Laurel Street. The area is flat with a few large trees that would need to be removed. Recommendations include creating a micropool followed by a pool with wetland plantings. Field assessment indicated that the areas upstream and downstream of the culvert are both eroded with a lot of sediment deposition.

AC9529 New BMP/LID

Potential parking lot retrofits at Canterbury Woods Elementary School. Recommendation is to retrofit the inlets with tree box filters to provide water quality treatment.

AC9530 New BMP/LID

This project is a bioretention to treat the parking lot runoff at the Longbranch Swim and Racquet Club on Bradfield Drive. Recommendations include adding bioretentions along the downslope edge of the parking lot. A bioretention is also proposed to capture rooftop and driveway runoff at Stephen's United Methodist Church.

AC9531 New BMP/LID

This project recommends a bioretention area to capture parking lot runoff from the Rutherford Area Swim Club parking lot. This will improve the water quality in the downstream waters.

5.5.1.2 25-Year Projects

AC9145 New Stormwater Pond

A pond is proposed to treat the runoff from the Canterbury Woods Swim Club on Blackpool Drive. This project would use a shallow wetland area to improve the water quality of the runoff.

AC9146 Stormwater Pond Retrofit

This site is an existing deep, dry pond with a small footprint. The proposed project is to retrofit the pond by adding a micropool, expanding the footprint and modifying the outlet to get channel erosion control or water quality volume storage.

AC9149 Stormwater Pond Retrofit

This project proposes to retrofit an existing wet pond treating runoff from the Dunleigh neighborhood. Recommendations include retrofitting the existing pond by modifying the outlet structure, clearing out the inlet, adding an aquatic shelf and clearing trees from the embankment.

AC9150 Stormwater Pond Retrofit

This is a proposed retrofit of a dry pond behind Fern Park Drive treating runoff from the Dunleigh neighborhood. The retrofit would provide water quality improvements.

AC9152 Stormwater Pond Retrofit

This project proposes to retrofit existing dry pond behind Tartan View Drive for water quality by creating forebays or micropools, lengthening the flow path and modifying the outlet structure.

AC9153 Stormwater Pond Retrofit

This project proposes to convert the existing wet pond to a large wetland. Proposed recommendations include excavating the pond to increase storage, adding pools and modifying the outlet.

AC9154 Stormwater Pond Retrofit

This is a retrofit of the existing wet pond treating runoff from Lee Meadows neighborhood. Field assessment indicated erosion in the low flow channel, sediment buildup in pond bottom and a clogged outlet. Proposed recommendations include modifying the outlet structure and adding forebays at the inlet.

AC9155 New Stormwater Pond

Very large residential area of the Briar Forest neighborhood is draining to a concrete channel behind Olley Lane. Project proposes to convert this channel to a linear wetland.

AC9156 Stormwater Pond Retrofit

This project proposes to retrofit the existing dry pond treating the runoff from the Korean Presbyterian Church by adding a forebay for additional water quality volume storage, modifying the outlet and lengthening the flow path.

AC9157 Stormwater Pond Retrofit

An existing dry pond behind Ceralen Court treating runoff from residential area is proposed to be converted to a wet pond by removing concrete channels, installing a sediment forebay and modifying the outlet to provide extended detention.

AC9309 Area-Wide Drainage Improvements

The untreated medium- and low-density residential areas in the Springbrook Forest neighborhood are recommended to be treated by implementing a hybrid area-wide drainage improvement project that includes installing filters at stormwater inlets, disconnecting downspouts and adding rain gardens

AC9310 Area-Wide Drainage Improvements

Large- and medium-density residential areas in the Rutherford neighborhood are proposed to be treated for runoff by implementing area wide drainage improvement projects.

AC9405 Culvert Retrofit

A retrofit is proposed for a culvert under Twinbrook Road. The proposed project recommendations are to provide storage above the embankment and retrofit the culvert on the upstream end and to stabilize the stream and provide a stilling basin on the downstream end.

AC9528 New BMP/LID

Bioretention or rain gardens are proposed to treat the parking lot runoff at Holy Spirit Catholic Church. There is also good potential to reduce impervious cover and disconnect rooftop drains. Bioretentions are also proposed at two areas to treat the upper parking lot runoff at the Canterbury Woods Swim Club on Blackpool Drive.

AC9532 New BMP/LID

This is a proposed bioretention at the outlet behind Bayard Road in Rutherford Park to capture runoff from the Rutherford neighborhood.

AC9533 New BMP/LID

This is a potential site for water quality swales and detention storage behind Marley Road at Rutherford Park.

5.5.2 Non Structural Projects

AC9900 Community Outreach/Public Education – Stenciling

This community-wide project involves marking the storm drains within the community. The stencil marking will educate the public, reduce dumping and reduce the amount of litter and pollutants that enter the storm drain system. Several locations were identified for implementation of this project, including Red Fox Forest, Stone Haven, Woodland Forest, Canterbury Woods, Olley Lane, Somerset and Oak Hill.

AC9904 Rain Barrel Programs – Rain Barrels

Rain barrels provide the first step for residents to disconnect their downspout. This project would be a community-wide outreach program to encourage their use. Several neighborhoods, Somerset South, Olley Lane, and Stone Haven, Red Fox Forest and Canterbury Woods, were identified during the upland reconnaissance with roof drainage that would be suitable for this approach.

AC9907 Community Outreach/Public Education – Lawn care

This project would provide community-wide outreach to homeowners to provide education and guidance on lawn care practices that would potentially reduce pollutants in stormwater runoff. The upland reconnaissance identified several neighborhoods, Canterbury Woods, Long Branch, Ashford, Bradfield, Olde Forge, Surrey Square, Braddock Green and Somerset South, that could be targeted with this effort.

AC9908 Inspection/Enforcement Enhancement Project – Dumpster Maintenance

One source of litter and pollutants in stormwater runoff is poorly maintained dumpsters and other waste management practices. This project is a community-wide enforcement and outreach approach to properties where problems were identified during the upland reconnaissance. Dumpsters in this WMA were flagged as hotspots with evidence of having no cover.

AC9909 Rain Barrel Programs – Downspout Disconnect

The upland reconnaissance identified several sites where downspouts were directly connected to storm drains. A watershed-wide outreach program could be beneficial in reducing runoff

volume or peak flows. In this WMA, they included the area around Haywood, Somerset, Hunts Village and Willow Woods.

AC9910 Street Sweeping Program – Street Sweeping

The Somerset, Old Creek Estates, Rutherford, Sussex and Springbrook Forest neighborhoods were found to have trash, litter or organic debris in the curb and gutter which could negatively impact the local waterways through flowing to storm drain inlets. This project consists of developing or extending a street sweeping program to remove potential pollutants from the street before they can wash into a storm drain or a stream.

AC9913 Dumpsite/Obstruction Removal - Dumpsite/Obstruction

One site was identified with a significant obstruction or dumpsite during the stream assessment. This project would be a community-wide program to remove obstructions and clean up dumpsites in the stream network. This site is comprised of debris blocking fish passage.

AC9935 Community Outreach/Public Education – Tree Planting

One community assessed during the upland reconnaissance could be sites for a watershed-wide outreach program to encourage tree planting and urban reforestation. This community is Holly Park.

Table 5-4: Long Branch Central Projects

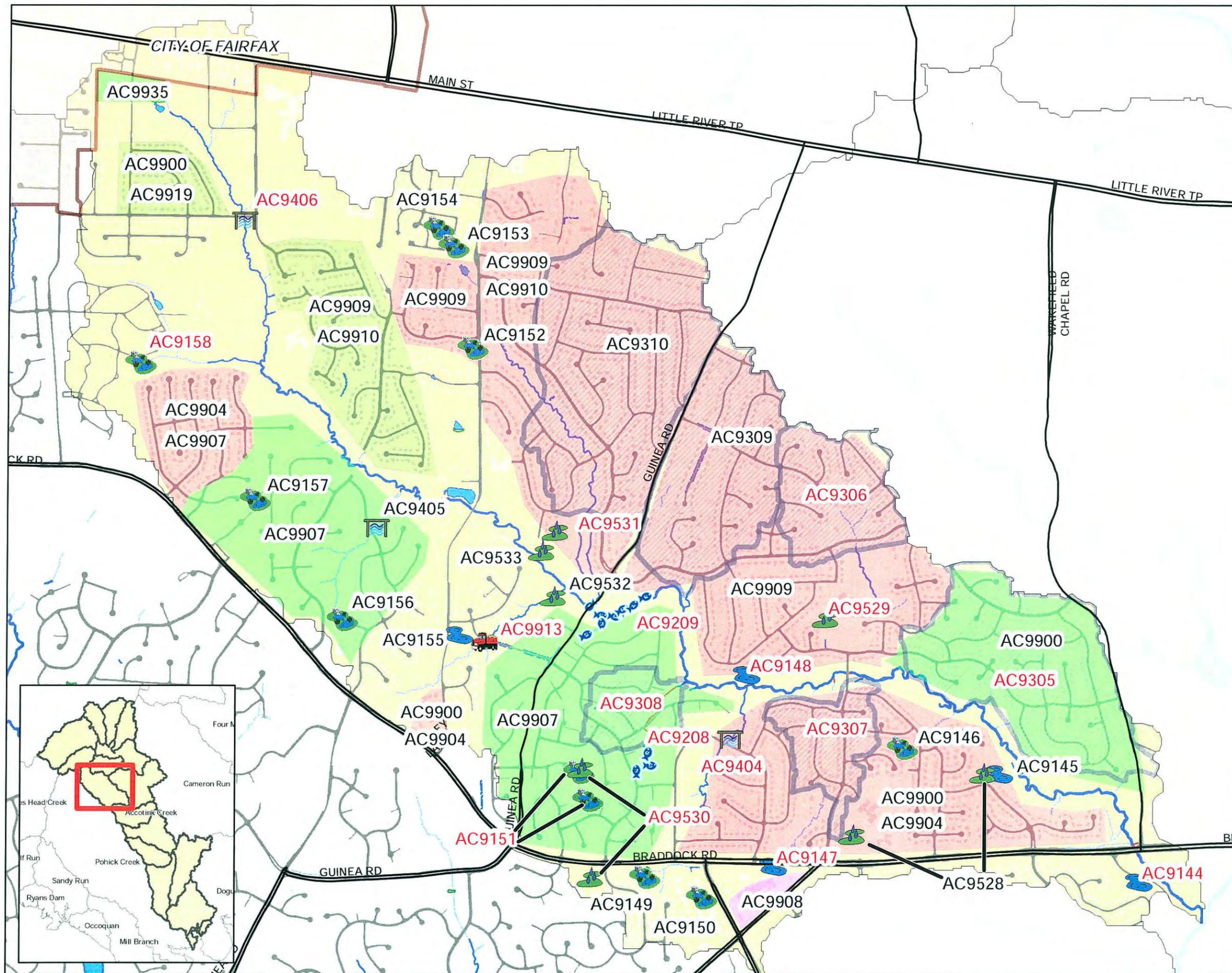
Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9144	New Stormwater Pond	AC-LB-0000	Kings Park	Water Quality and Quantity	County – FCPA	1 – 10
AC9147	New Stormwater Pond	AC-LB-0015	Intersection of Burke Lake Road and Braddock Road	Water Quality and Quantity	Private – Commercial	1 – 10
AC9148	New Stormwater Pond	AC-LB-0015	Long Branch	Water Quality and Quantity	County – FCPA	1 – 10
AC9151	Stormwater Pond Retrofit	AC-LB-0025	Long Branch Swim and Raquet Club	Water Quality	Private	1 – 10
AC9158	Stormwater Pond Retrofit	AC-LB-0065	Somerset South	Water Quality and Quantity	Private – HOA	1 – 10
AC9208	Stream Restoration	AC-LB-0025	Long Branch Falls Park	Water Quality	County-FCPA	1 – 10
AC9209	Stream Restoration	AC-LB-0030	Between King Solomon Dr and Braeburn Dr	Water Quality	County-FCPA	1 – 10
AC9305	Area-wide Drainage Improvements	AC-LB-0005	Within the Canterbury Woods Neighborhood	Water Quality	Private – Residential	1 – 10
AC9306	Area-wide Drainage Improvements	AC-LB-0010	Within the Willow Woods Neighborhood	Water Quality	Private – Residential	1 – 10
AC9307	Area-wide Drainage Improvements	AC-LB-0015	Within the Woodland Forest Neighborhood	Water Quality	Private – Residential	1 – 10
AC9308	Area-wide Drainage Improvements	AC-LB-0025	Within the Long Branch Neighborhood	Water Quality	Private – Residential	1 – 10
AC9404	Culvert Retrofit	AC-LB-0020	Red Fox Forest	Water Quality	County – FCPA	1 – 10
AC9406	Culvert Retrofit	AC-LB-0075	Somerset	Water Quality	County – FCPA	1 – 10

Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9529	BMP/LID	AC-LB-0015	Canterbury Woods Elementary School	Water Quality	County – FCPS	1 – 10
AC9530	BMP/LID	AC-LB-0025	Longbranch Swim and Racquet Club Parking Lot and St. Stephens United Methodist Church	Water Quality	Private	1 – 10
AC9531	BMP/LID	AC-LB-0035	Community Pool parking lot	Water Quality / Channel Protection	County – FCPA	1 – 10
AC9145	New Stormwater Pond	AC-LB-0005	Canterbury Woods Swim Club	Water Quality and Quantity	Private	11 – 25
AC9146	Stormwater Pond Retrofit	AC-LB-0005	Behind Althea Dr	Water Quality and Quantity	Private	11 – 25
AC9149	Stormwater Pond Retrofit	AC-LB-0020	Between Braddock Rd and Dunleigh Dr	Water Quality and Quantity	Private	11 – 25
AC9150	Stormwater Pond Retrofit	AC-LB-0020	Behind Hersand Dr	Water Quality and Quantity	Private	11 – 25
AC9152	Stormwater Pond Retrofit	AC-LB-0040	Behind Tartan View Dr	Water Quality and Quantity	Private	11 – 25
AC9153	Stormwater Pond Retrofit	AC-LB-0040	Behind Wrought Iron Ct	Water Quality and Quantity	Private	11 – 25
AC9154	Stormwater Pond Retrofit	AC-LB-0040	Lee Meadows Neighborhood. Between Mirror Pond Dr and Broadwire Dr	Water Quality and Quantity	Private	11 - 25
AC9155	New Stormwater Pond	AC-LB-0045	Behind Olley Ln	Water Quality and Quantity	Private	11 - 25

Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9156	Stormwater Pond Retrofit	AC-LB-0060	Korean Presbyterian Church	Water Quality and Quantity	Private	11 - 25
AC9157	Stormwater Pond Retrofit	AC-LB-0060	George Mason Park	Water Quality and Quantity	County-FCPA	11 - 25
AC9309	Area-wide Drainage Improvements	AC-LB-0030	Springbrook Forest Neighborhood. Between Phoebe Ct and Burbank Rd	Water Quality	Private	11 - 25
AC9310	Area-wide Drainage Improvements	AC-LB-0035	Rutherford Neighborhood. Between Ellen Wood Ln and Kristin Ln	Water Quality	Private	11 - 25
AC9405	Culvert Retrofit	AC-LB-0060	Old Forge Park. Twinbrook Rd	Water Quality	County-FCPA	11 - 25
AC9528	BMP/LID	AC-LB-0005	Holy Spirit Catholic Church and Canterbury Woods Swim Club	Water Quality	Private	11 - 25
AC9532	BMP/LID	AC-LB-0045	Rutherford Park	Water Quality	County-FCPA	11 - 25
AC9533	BMP/LID	AC-LB-0055	Rutherford Park	Water Quality	County-FCPA	11 - 25

Non-Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	
AC9900	Community Outreach/Public Education	Multiple	Multiple	Water Quality	Multiple	
AC9904	Rain Barrels	Multiple	Multiple	Water Quality and Quantity	Multiple	

Non-Structural Projects					
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner
AC9907	Community Outreach/Public Education	Multiple	Multiple	Water Quality	Multiple
AC9908	Inspection/Enforcement Enhancement Project	Multiple	Multiple	Water Quality	Multiple
AC9909	Rain Barrels	Multiple	Multiple	Water Quality and Quantity	Multiple
AC9910	Street Sweeping Program	Multiple	Multiple	Water Quality	Multiple
AC9913	Dumpsite/Obstruction Removal	Multiple	Multiple	Water Quality	Multiple
AC9935	Community Outreach/Public Education	Multiple	Multiple	Water Quality and Quantity	Multiple



- Buffer Restoration
- Stream Restoration
- BMP/LID
- Culvert Retrofit
- Dumpsite/Obstruction Removal
- New Stormwater Pond
- Outfall Improvement
- Stormwater Pond Retrofit
- Other

- Community Outreach/ Public Education
- Area-wide Drainage Improvements
- Land Conservation Project
- Flood Protection/ Mitigation
- Inspection/Enforcement Enhancement Project
- Rain Barrel Programs
- Street Sweeping Program
- Studies, Surveys and Assessments

Implementation timeframe denoted by project label color.
 Red = 0-10 years Black = 11-25 years.

Map 5.5

WMA: Long Branch Central
 Proposed Projects

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5.6 Long Branch North

The results of the subwatershed strategy analysis showed that all except two subwatersheds in Long Branch North are impaired in some form. A subwatershed in the southwestern corner of the WMA was among the lowest ranked in the Accotink watershed for composite score of impacts and sources because it is completely built out with low forest cover.

5.6.1 Structural Projects

5.6.1.1 10-Year Projects

AC9180 Stormwater Pond Retrofit

Dry pond DP0108 provides detention for the runoff from the theater parking lot on Hilltop Road. The parking lot runoff at the shopping center on Eskridge Road is treated by dry pond DP0080. The proposed project is to convert each facility to an extended detention basin with a new riser.

AC9181 Stormwater Pond Retrofit

A retrofit is proposed for dry pond DP0146 that drains Prosperity Business Campus. Project recommendations include removing the existing concrete channels, excavating to create a permanent wet storage element and replacing the existing riser.

AC9550 New BMP/LID

This project would install a sand filter, a vegetated swale, and retrofit two storm drain inlets with tree box filters along Industry Lane to treat the roof top and parking lot runoff on these industrial properties.

AC9551 New BMP/LID

Two bioretention filters are proposed to treat the runoff from rooftops and paved areas located in the southern section of Stenwood Elementary School.

5.6.1.2 25-Year Projects

AC9179 Stormwater Pond Retrofit

This project would retrofit dry pond DP0138, which drains a part of Luther Jackson Middle School and the Gatehouse shopping complex to a wet pond by excavating the bottom to add water quality treatment.

AC9224 Stream Restoration Project

This is a potential stream restoration project between Custis Memorial Parkway and Prosperity Avenue. Proposed project recommendations are to raise the bed elevation using step pools. Severe erosion was observed throughout the stream length. Bank stabilization is also recommended.

AC9314 Area-Wide Drainage Improvements

An area-wide drainage improvement for high-density residential area in the Dunn Loring Village neighborhood by implementing a hybrid project that includes installing tree box filters, disconnecting downspouts and installing rain gardens.

AC9552 New BMP/LID

This project site is at Thoreau Middle School and Stemwood Elementary School. Bioretention facilities are proposed along the edge of the parking lot to treat the parking lot and part of rooftop runoff for water quality. Curb cuts are recommended to divert the parking lot runoff to proposed bioretention areas.

5.6.2 Non Structural Projects

AC9806 Buffer - Buffer

This project, located between Amberley Land and Wynford Drive, involves the restoration of the depleted stream buffer.

AC9900 Community Outreach/Public Education - Stenciling

This community-wide project involves marking the storm drains within the community. The stencil marking will educate the public, reduce dumping and reduce the amount of litter and pollutants that enter the storm drain system. Several locations were identified for implementation of this project, including Panos' North Pine, North Pine Ridge, the Retreat at Sycamore Ridge, Stonewall Manor, Dunn Loring Woods, Oak Forrest, Pine Ridge, Sutton Place and Amanda Place.

AC9902 Inspection/Enforcement Enhancement Project - Vehicle Maintenance

This project would provide community-wide targeted enforcement of spill prevention and pollution prevention regulations for sites where vehicles are maintained. The upland reconnaissance identified an uncovered fueling area.

AC9903 Inspection/Enforcement Enhancement Project - Outdoor Materials

Materials that are stored outdoors are subjected to many types of precipitation, making them a possible source of stormwater runoff pollution. Three sites in this WMA had improper storage of mulch, uncovered fueling islands, oil-stained drum storage or uncovered storage of topsoil and sand. This project would be a community-wide enforcement and outreach approach to check for stormwater pollution prevention plans and to educate property owners.

AC9908 Inspection/Enforcement Enhancement Project - Dumpster Maintenance

One source of litter and pollutants in stormwater runoff is poorly maintained dumpsters and other waste management practices. This project is a community-wide enforcement and outreach approach to properties where problems were identified during the upland reconnaissance. Dumpsters in this WMA were flagged as hotspots with evidence of overflowing garbage and grease running from overfull grease traps and dumpsters to a storm drain.

Accotink Creek Watershed Management Plan

AC9913 Dumpsite/Obstruction Removal - Dumpsite/Obstruction

Eight sites were identified with significant obstructions or dumpsites during the stream assessment. This project would be a community-wide program to remove obstructions and clean up dumpsites in the stream network. These sites are comprised of carpet and padding in the stream, trees blocking fish passage and debris within the stream.

Table 5-5: Long Branch North Projects

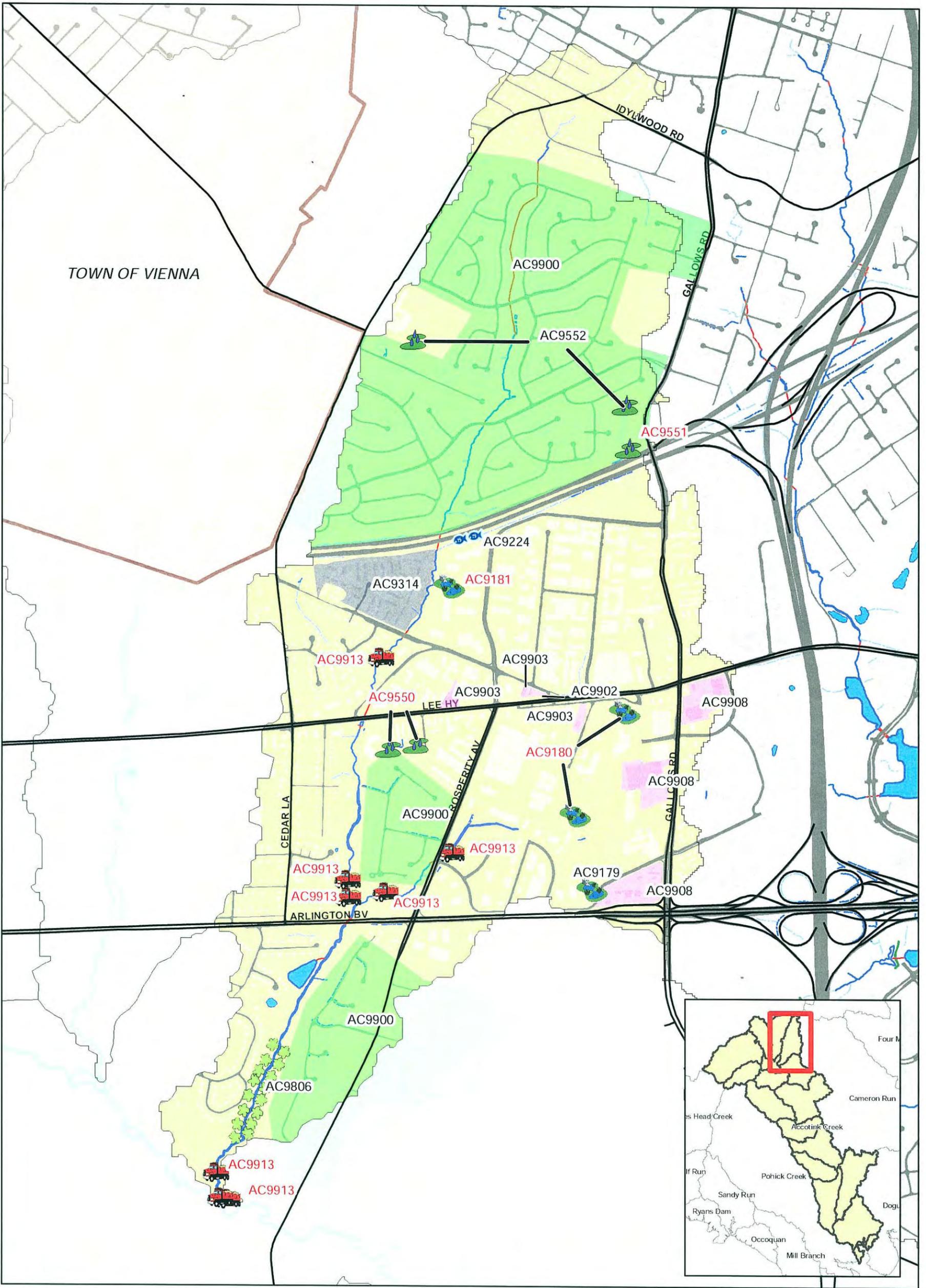
Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9180	Stormwater Pond Retrofit	AC-LC-0005	Behind Professional Hill Drive	Water Quality and Quantity	Private - Commercial	1 - 10
AC9181	Stormwater Pond Retrofit	AC-LC-0025	Prosperity Business Campus	Water Quality and Quantity	Private - Commercial	1 - 10
AC9550	BMP/LID	AC-LC-0015	Industry Lane and Lee Hwy	Water Quality	Private - Industrial	1 - 10
AC9551	BMP/LID	AC-LC-0025	Stemwood Elementary School	Water Quality	County - FCPS	1 - 10
AC9179	Stormwater Pond Retrofit	AC-LC-0005	Luther Jackson Middle School	Water Quality and Quantity	County - FCPS	11 - 25
AC9224	Stream Restoration	AC-LC-0025	Prosperity Business Campus	Water Quality	Private	11 - 25
AC9314	Area-wide Drainage Improvements	AC-LC-0025	Between Morada Ct and Knollside Ln	Water Quality	Private	11 - 25
AC9552	BMP/LID	AC-LC-0030	Thoreau Middle School and Stenwood Elementary School	Water Quality	County-FCPS	11 - 25

Non-Structural Projects					
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner
AC9806	Buffer Restoration	AC-LC-0000	Behind Amberley Ln	Water Quality	Private

Non-Structural Projects

Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner
AC9900	Community Outreach/Public Education	Multiple	Multiple	Water Quality	Multiple
AC9902	Inspection/Enforcement Enhancement Project	Multiple	Multiple	Water Quality	Multiple
AC9903	Inspection/Enforcement Enhancement Project	Multiple	Multiple	Water Quality	Multiple
AC9908	Inspection/Enforcement Enhancement Project	Multiple	Multiple	Water Quality	Multiple
AC9913	Dumpsite/Obstruction Removal	Multiple	Multiple	Water Quality	Multiple

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| Buffer Restoration | New Stormwater Pond | Community Outreach/Public Education |
| Stream Restoration | Outfall Improvement | Area-wide Drainage Improvement |
| BMP/LID | Stormwater Pond Retrofit | Land Conservation Project |
| Culvert Retrofit | Other | Flood Protection/Mitigation |
| Dumpsite/Obstruction Removal | | Inspection/Enforcement Enhancement |
| | | Rain Barrel Program |
| | | Street Sweeping Program |
| | | Studies, Surveys and Assessments |
- Implementation timeframe denoted by project label color. Red = 0-10 years Black = 11-25 years.

Map 5.6
WMA: Long Branch North
Proposed Projects

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5.7 Long Branch South

The results of the subwatershed strategy analysis showed a significant number of subwatersheds in Long Branch South impaired in some form. Six subwatersheds were in good conditions, three of which include large undeveloped and forested areas and the remaining three are undeveloped parcels of Fort Belvoir, Loisdale Estates and Amberleigh Park.

5.7.1 Structural Projects

5.7.1.1 10-Year Projects

AC9102 Stormwater Pond Retrofit

This project is at an existing VDOT dry pond that treats runoff from Fairfax County Parkway and a part of an industrial area. The proposed project is to convert this to a shallow wetland facility by excavating for additional storage, plunge pools at the inflows, wetland and dry plantings, and a new fence around the facility.

AC9105 Stormwater Pond Retrofit

This project is a retrofit of an existing dry pond providing water quantity control for the runoff from multifamily residential homes in Pinewood Station. The dry pond would be converted to an extended detention facility. The existing headwalls will be removed and a riser structure added, the concrete low-flow channels will be removed and a plungepool added at each inflow for energy dissipation into the facility.

AC9106 Stormwater Pond Retrofit

This site is two dry ponds that treat runoff from Newington Industrial Park. The proposed project recommendations include excavating the bottom of the pond for water quality volume storage and removing the concrete channel.

AC9109 Stormwater Pond Retrofit

The existing dry pond treating runoff from residential homes between Brockett Crossing and Venture Drive is proposed to be converted to an extended detention pond. This retrofit would add a new riser structure, remove the concrete low-flow channels and replace them with a meandering low flow channel, excavate for additional storage and add plantings.

AC9110 Stormwater Pond Retrofit

This project is a proposed retrofit of a dry pond behind Greenleigh Lane in the Amberleigh neighborhood. The dry pond would be retrofit to an extended detention pond by adding a riser, excavating and creating berms to lengthen the flow path.

AC9111 Stormwater Pond Retrofit

This proposed project is to retrofit an existing dry pond behind Birchleigh Way in the Amberleigh neighborhood. Project recommendations include adding a riser structure, removing the headwall, tree removal and riprap stabilization.

AC9112 Stormwater Pond Retrofit

A retrofit of the VDOT dry pond in the Springfield Industrial Center is recommended. The pond would be excavated and the outlet redesigned to reduce clogging. This would allow this pond to achieve water quality and water quantity goals for habitat improvement and downstream channel erosion reduction.

AC9113 Stormwater Pond Retrofit

This project is a retrofit of the dry pond at the Springfield Industrial Center. The existing pond would be retrofit by modifying the outlet structure, wetland plantings and adding plunge pools. Field observations indicated that a part of the riser has failed.

AC9114 Stormwater Pond Retrofit

This is an existing pond in the Springfield Industrial Park with a large drainage area to be retrofitted for water quality by reforesting and adjusting the outlet for storage.

AC9115 Stormwater Pond Retrofit

This project would retrofit an existing VDOT dry pond treating the neighborhood of Windsor Gable. Recommendations include a new riser structure, restricting the outlet for storage and installing a low berm to lengthen the flow path.

AC9116 Stormwater Pond Retrofit

This project would retrofit an existing dry pond treating run off from multifamily residential area in the Devonshire Townhomes to an extended detention facility. Concrete channels would be removed and a meandering low flow channel created.

AC9120 Stormwater Pond Retrofit

This project is a retrofit of an existing pond treating multifamily residential area near Springfield Metro Center. The project proposes to convert the existing pond to a wetland by excavating for water quality volume and/or reforesting the site. Trash removal is also recommended.

AC9501 New BMP/LID

A vegetated swale alongside an existing pond is proposed to provide water quality treatment for the runoff from a section of Newington Industrial Park.

AC9502 New BMP/LID

A vegetated swale is proposed at the downstream outfall from commercial area on Newington Road to provide water quality treatment. The outfall is filled with sediment.

AC9503 New BMP/LID

This project proposes adding a bioretention facility to treat parking lot runoff at the Franconia-Springfield Metro Station.

Accotink Creek Watershed Management Plan

AC9504 New BMP/LID

This project is located at a series of strip malls opposite Springfield Mall on Frontier Drive. The parking island and the area between the stores and the street could be retrofitted with bioretention facilities to treat the runoff from the parking lots.

AC9505 New BMP/LID

This project proposes tree box filters to treat the runoff from the parking lot at Francis Scott Key School. There is no existing stormwater management on site.

AC9506 BMP/LID Retrofit

Field assessment indicates small bioretentions within the medians would treat the parking lot runoff at the commercial center on Frontier Drive. There are already existing underground facilities to provide detention.

AC9508 New BMP/LID

This project includes retrofitting existing storm drain inlets with tree box filters to treat runoff from the western portion of the parking lot at Robert E. Lee High School.

AC9600 Flood Protection/Mitigation

This project, located at the culvert under the railroad tracks near Cinder Bed Road, would reduce flooding during the 10-year and 100-year storms.

5.7.1.2 25-Year Projects

AC9103 Stormwater Pond Retrofit

This is a potential pond retrofit that treats a part of runoff from the Gateway 95 Business Park. Recommendations include adding a riser at the outlet to provide channel erosion control and a plungepool at the inlet.

AC9104 Stormwater Pond Retrofit

This project is at a small existing dry pond at Shirley Complex that provides detention for runoff. Proposed project is to add water quality treatment by converting the pond to a bioretention facility.

AC9107 Stormwater Pond Retrofit

The existing dry pond treating runoff from the Landsdowne neighborhood is proposed to be converted to an extended detention facility by removing concrete channels and excavating the area. Quantity control would be expanded by regrading embankments. A micropool and forebay would be created to promote water quality control. The existing outlet appears to be designed for very large storm events; this could be reconfigured to slowly release water, which will maintain lower velocities in the downstream channel.

AC9108 Stormwater Pond Retrofit

This project recommends converting the existing small dry pond in the Amberleigh neighborhood by excavating for water quality volume storage, installing a restrictor on the riser and lengthening the flow path.

AC9117 Stormwater Pond Retrofit

This project proposes converting the existing dry pond treating runoff from a part of Fleet Industrial Park to a wet pond by raising the restrictor to create a permanent pool to improve water quality treatment.

AC9118 Stormwater Pond Retrofit

This project proposes to convert the dry pond behind Gravel Road at Fleet Industrial Park to a wet pond by raising the restrictor to increase the wet area and thus improve water quality in the receiving waters. Reforestation is also recommended.

AC9119 Stormwater Pond Retrofit

This project would retrofit the existing dry pond behind Gildar Street treating runoff from Springfield North Condominiums to a wet pond by excavating and removing concrete channels or raising the restrictor and overflow.

AC9121 Stormwater Pond Retrofit

There is an existing dry pond at Sunrise Assisted Living providing detention for runoff from the site. The proposed project would retrofit the dry pond by removing the concrete channel and raising the overflow. A micropool and forebay would be added for water quality management.

AC9122 New Stormwater Ponds

There are three potential areas for improvement in the ramp behind Commerce Street: two depressions and an eroding ditch. Improvements include replacing the catch basins in the bottom of the depressions with risers.

AC9301 Area-Wide Drainage Improvements

Implement an area-wide drainage improvement for the Windsor Park neighborhood by implementing a hybrid project that includes installing tree box filters.

AC9507 BMP/LID Retrofit

This project is for a bioretention to treat parking lot runoff for water quality at Springfield Mall. The project would require removing parking spaces to provide space for the project and also to reduce impervious area.

5.7.2 Non Structural Projects

AC9800 Buffer - Buffer

This project, located off of Telegraph Road, involves the restoration of the depleted stream buffer.

AC9801 Buffer - Buffer

This project, located near Cinder Bed Road, involves the restoration of the depleted stream buffer.

AC9902 Inspection/Enforcement Enhancement Project - Vehicle Maintenance

This project would provide community-wide targeted enforcement of spill prevention and pollution prevention regulations for sites where vehicles are maintained. The upland reconnaissance identified an outdoor vehicle repair/maintenance/storage facility and a van wash discharging directly to a storm drain.

AC9903 Inspection/Enforcement Enhancement Project - Outdoor Materials

Materials that are stored outdoors are subjected to many types of precipitation, making them a possible source of stormwater runoff pollution. Four sites in this WMA had construction equipment stored outdoors, outdoor equipment fueling or outdoor drum storage without cover. This project would be a community-wide enforcement and outreach approach to check for stormwater pollution prevention plans and to educate property owners.

AC9904 Rain Barrel Programs - Rain Barrels

Rain barrels provide the first step for residents to disconnect their downspout. This project would be a community-wide outreach program to encourage their use. Two neighborhoods, Loisdale Estates and Springfield Forest, were identified during the upland reconnaissance with roof drainage that would be suitable for this approach.

AC9906 Inspection/Enforcement Enhancement Project - Litter/Trash Enforcement

Litter and trash enforcement is done through the enforcement of regulations for illegal dumping, litter laws, or unsecure truck loads. Community outreach programs for beautifying neighborhoods, including health and safety information, can be used effectively in the implementation of the programs. The area flagged for enforcement includes a cul-de-sac at the north end of Terminal Road.

AC9907 Community Outreach/Public Education - Lawn care

This project would provide community-wide outreach to homeowners to provide education and guidance on lawn care practices that would potentially reduce pollutants in stormwater runoff. The upland reconnaissance identified several neighborhoods: Loisdale Estates, Springfield Forest and Windsor Estates, that could be targeted with this effort.

AC9908 Inspection/Enforcement Enhancement Project - Dumpster Maintenance

One source of litter and pollutants in stormwater runoff is poorly maintained dumpsters and other waste management practices. This project is a community-wide enforcement and outreach approach to properties where problems were identified during the upland reconnaissance. Dumpsters in this WMA were flagged as hotspots with evidence of unknown leakage.

AC9909 Rain Barrel Programs - Downspout Disconnect

The upland reconnaissance identified several sites where downspouts were directly connected to storm drains. A watershed-wide outreach program could be beneficial in reducing runoff volume or peak flows. In this WMA, they included the area around Hunter Estates and Newberry Station.

AC9910 Street Sweeping Program - street sweeping

Loisdale Estates were found to have trash, litter or organic debris in the curb and gutter, flowing to storm drain inlets. This project consists of developing or extending a street sweeping program to remove potential pollutants from the street before they can wash into a storm drain or a stream.

AC9913 Dumpsite/Obstruction Removal - Dumpsite/Obstruction

One site was identified with significant obstructions or dumpsites during the stream assessment. This project would be a community-wide program to remove obstructions and clean up dumpsites in the stream network. This site contains appliances, trash, and yard waste on the stream bank.

Table 5-6: Long Branch South Projects

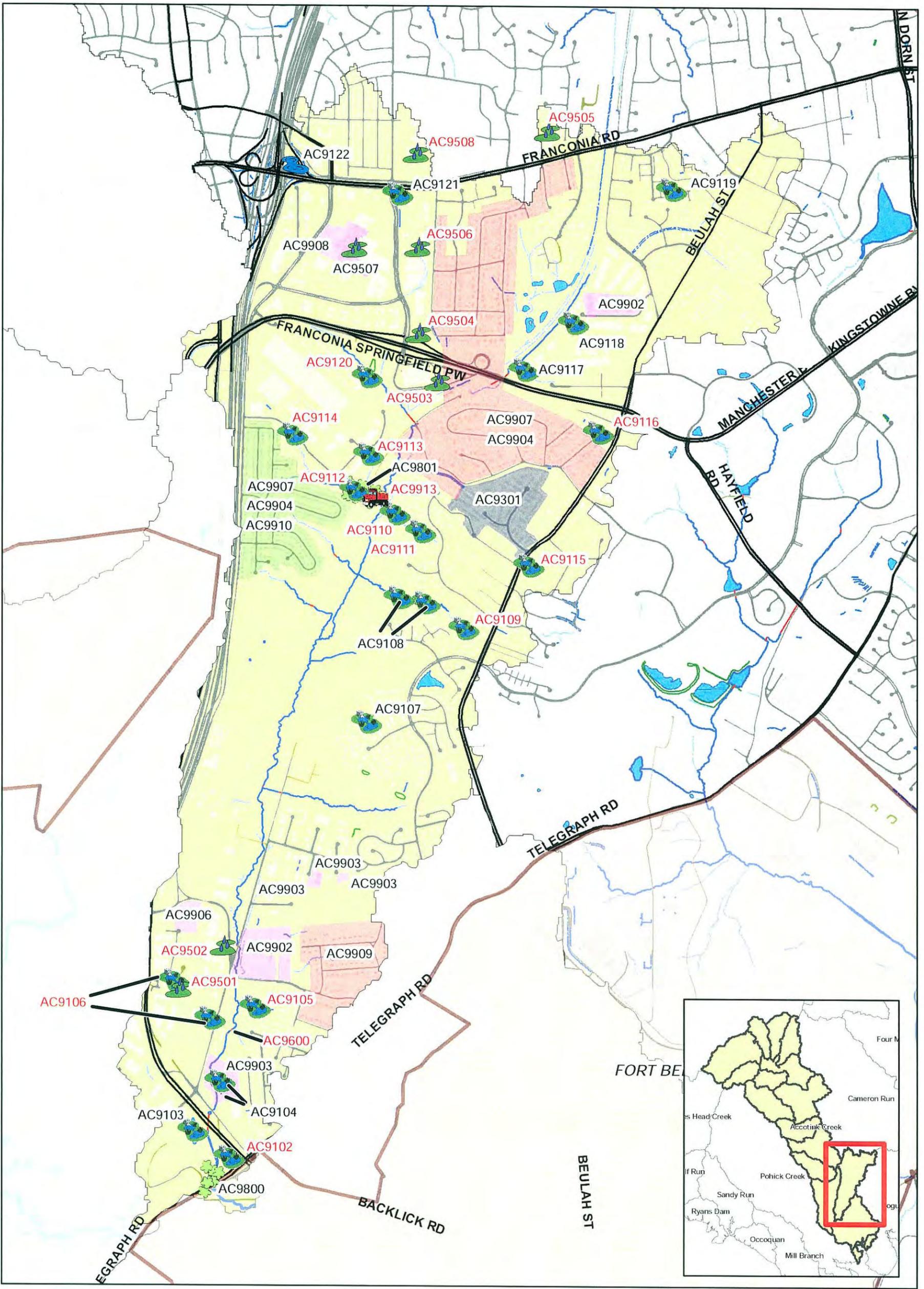
Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9102	Stormwater Pond Retrofit	AC-LA-0003	Intersection of Telegraph Rd and Fairfax County Pkwy	Water Quality	State - VDOT	1 - 10
AC9105	Stormwater Pond Retrofit	AC-LA-0010	Pinewood Station	Water Quality and Quantity	Private - HOA	1 - 10
AC9106	Stormwater Pond Retrofit	AC-LA-0010	Backlick and Cinderbed Roads	Water Quality and Quantity	State - VDOT, Private - Commercial	1 - 10
AC9109	Stormwater Pond Retrofit	AC-LA-0045	Island Creek	Water Quality and Quantity	County - FCPA	1 - 10
AC9110	Stormwater Pond Retrofit	AC-LA-0050	Amberleigh	Water Quality and Quantity	Private - HOA	1 - 10
AC9111	Stormwater Pond Retrofit	AC-LA-0050	Amberleigh	Water Quality and Quantity	Private - HOA	1 - 10
AC9112	Stormwater Pond Retrofit	AC-LA-0060	Springfield Industrial Park	Water Quality and Quantity	Private - Commercial	1 - 10
AC9113	Stormwater Pond Retrofit	AC-LA-0060	Springfield Industrial Park	Water Quality and Quantity	Private - Commercial	1 - 10
AC9114	Stormwater Pond Retrofit	AC-LA-0060	Springfield Industrial Park	Water Quality and Quantity	State - VDOT	1 - 10
AC9115	Stormwater Pond Retrofit	AC-LA-0055	Next to Assembly of God Church	Water Quality and Quantity	State - VDOT	1 - 10
AC9116	Stormwater Pond Retrofit	AC-LA-0055	Devonshire Townhomes	Water Quality and Quantity	Private - HOA	1 - 10

Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9120	Stormwater Pond Retrofit	AC-LA-0065	Metropolitan Center Drive	Water Quality and Quantity	Private	1 - 10
AC9600	Flood Protection/Mitigation	AC-LA-0010	Culvert under railroad behind Industrial Park	Water Quantity	Federal	1 - 10
AC9501	BMP/LID	AC-LA-0010	Newington Industrial Park. Terminal Drive	Water Quality	Private - Industrial	1 - 10
AC9502	BMP/LID	AC-LA-0015	Newington Road	Water Quality	Private	1 - 10
AC9503	BMP/LID	AC-LA-0050	Franconia/Springfield Metro	Water Quality	State / Federal	1 - 10
AC9504	BMP/LID	AC-LA-0050	Shopping area near Frontier Drive and Franconia Springfield Parkway	Water Quality	Private – Commercial	1 - 10
AC9505	BMP/LID	AC-LA-0080	Francis Scott Key School	Water Quality	County - FCPS	1 - 10
AC9506	BMP/LID	AC-LA-0070	Commercial Parking Lot	Water Quality	Private - Commercial	1 - 10
AC9508	BMP/LID	AC-LA-0075	Robert E. Lee High School	Water Quality	County - FCPS	1 - 10
AC9103	Stormwater Pond Retrofit	AC-LA-0003	Gateway 95 Business Park	Water Quality and Quantity	Private	11 - 25
AC9104	Stormwater Pond Retrofit	AC-LA-0005	Shirley Complex	Water Quality and Quantity	Private	11 - 25
AC9107	Stormwater Pond Retrofit	AC-LA-0030	Landsdowne Neighborhood. Behind Sullivan Circle	Water Quality and Quantity	Private	11 - 25
AC9108	Stormwater Pond Retrofit	AC-LA-0045	Amberleigh Park	Water Quality and Quantity	County-FCPA	11 - 25

Structural Projects						
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner	Phase
AC9117	Stormwater Pond Retrofit	AC-LA-0085	Fleet Industrial Park	Water Quality and Quantity	Private	11 - 25
AC9118	Stormwater Pond Retrofit	AC-LA-0085	Fleet Industrial Park	Water Quality and Quantity	Private	11 - 25
AC9119	Stormwater Pond Retrofit	AC-LA-0090	Gildar St	Water Quality and Quantity	Private	11 - 25
AC9121	Stormwater Pond Retrofit	AC-LA-0075	Sunrise Assisted Living	Water Quality and Quantity	Private	11 - 25
AC9122	New Stormwater Pond	AC-LA-0075	I-95 and Franconia Rd Interchange	Water Quality and Quantity	Federal	11 - 25
AC9301	Area-wide Drainage Improvements	AC-LA-0055	Windsor Park. Between Silverridge Circle and Casperson Rd	Water Quality	Private	11 - 25
AC9507	BMP/LID	AC-LA-0075	Springfield Mall	Water Quality	Private	11 - 25

Non-Structural Projects					
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner
AC9800	Buffer Restoration	AC-LA-0003	Intersection of Telegraph Rd and Fairfax County Pkwy	Water Quality	Private
AC9801	Buffer Restoration	AC-LA-0050	Springfield Industrial Center. Cinder Bed Rd	Water Quality	Private
AC9902	Inspection/Enforcement Enhancement Project	Multiple	Multiple	Water Quality	Multiple

Non-Structural Projects					
Project #	Project Type	Subshed	Location	Watershed Benefit	Land Owner
AC9903	Inspection/Enforcement Enhancement Project	Multiple	Multiple	Water Quality	Multiple
AC9904	Rain Barrels	Multiple	Multiple	Water Quality and Quantity	Multiple
AC9906	Inspection/Enforcement Enhancement Project	Multiple	Multiple	Water Quality	Multiple
AC9907	Community Outreach/Public Education	Multiple	Multiple	Water Quality	Multiple
AC9908	Inspection/Enforcement Enhancement Project	Multiple	Multiple	Water Quality	Multiple
AC9909	Rain Barrels	Multiple	Multiple	Water Quality and Quantity	Multiple
AC9910	Street Sweeping Program	Multiple	Multiple	Water Quality	Multiple
AC9913	Dumpsite/Obstruction Removal	AC-LA-0010	Multiple	Water Quality	Multiple



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| Buffer Restoration | New Stormwater Pond | Community Outreach/Public Education |
| Stream Restoration | Outfall Improvement | Area-wide Drainage Improvement |
| BMP/LID | Stormwater Pond Retrofit | Land Conservation Project |
| Culvert Retrofit | Other | Flood Protection/Mitigation |
| Dumpsite/Obstruction Removal | | Inspection/Enforcement Enhancement |
| | | Rain Barrel Program |
| | | Street Sweeping Program |
| | | Studies, Surveys and Assessments |
- Implementation timeframe denoted by project label color. Red = 0-10 years Black = 11-25 years.

Map 5.7

WMA: Long Branch South
Proposed Projects

5-53

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