

# *DRAFT revised Arlington Forest Neighborhood Conservation Plan*

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## **EXECUTIVE SUMMARY**

*To be drafted after the report is finalized.*

## **INTRODUCTION**

Arlington Forest is a community of 852 houses located in west-central Arlington about 3-1/2 miles from Washington, DC. The neighborhood straddles the North/South Arlington line demarcated by Arlington Boulevard. **Map X** [placeholder on next page] shows the neighborhood boundaries. Covering 219 acres, the neighborhood is bordered by the W&OD Trail in the southwest, by North Carlin Springs Road and North George Mason Drive in the north and northwest, and by North Henderson Road and Arlington Forest Branch (a brook) in the east. The community also includes a block of homes east of North Henderson Road along 2nd Street North.

Lubber Run and Arlington Boulevard intersect Arlington Forest, dividing our neighborhood into four sections (map X). To the north of Arlington Boulevard are Northside (the area east of Lubber Run), with 282 homes, and Greenbrier (west of the stream), with 399 homes. To the south of Arlington Boulevard are Southside (east of Lubber Run) and Broyhill's Addition (west of the stream), which together have 171 homes. (This neighborhood conservation plan treats Broyhill's Addition as part of Southside.)

The subneighborhoods drain into different subwatersheds formed by Lubber Run and Arlington Forest Brook as tributaries of Four Mile Run (map X). About half of the land area of Arlington Forest is in the Lubber Run watershed, with the rest divided between Four Mile Run and Arlington Forest Branch. The northern and eastern parts of Greenbrier and the western part of Northside are in the Lubber Run watershed. Arlington Forest Branch drains the eastern parts of both Northside and Southside, whereas the southwestern part of Greenbrier and the western part of Southside drain directly into Four Mile Run.

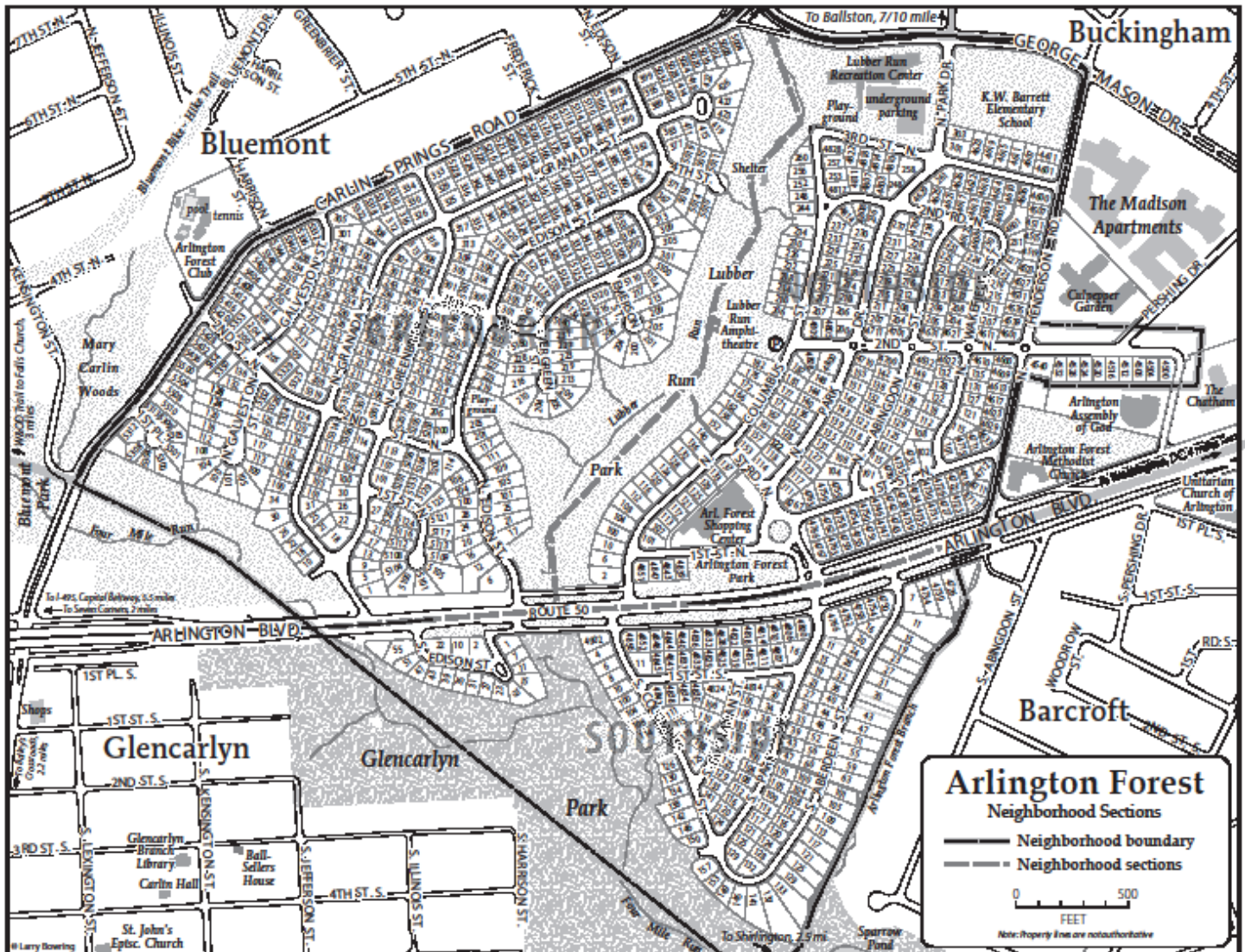
As recently as the 1930s, the area was entirely farmland, forestland, and pastureland. Arlington Forest derives its name from the wooded portions of the original landscape, still evident in neighboring parklands and in the large trees on many properties. The neighborhood streets wind through (mostly) colonial-style homes that were originally homogeneous and small (with a standard footprint of 20 by 25 feet), although the houses now sport a variety of sizes and styles, from gabled traditional to glass-walled modernist.

Although our neighborhood appearance has changed, our shared love of our wooded surroundings and our tight-knit community are as strong as ever. Depending on the day and time, you might hear teens joking at a school bus stop, dog walkers chatting along sidewalks, shrieks of delight coming from playgrounds, toddlers launching pebbles into a stream, parents planning fundraisers to augment elementary school teachers' supplies, guitarists entertaining shoppers buying local produce at our seasonal farmers' market, or a mid-July block party with barbecue grills and movie screens.

The Arlington Forest Citizens Association (AFCA) circulates a community newsletter to our 852 households. Through the newsletter and an AFCA listserv, the community enlists volunteers to

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- 1 manage spring stream cleanups, fall scarecrow making, and our longstanding winter holiday
- 2 celebration. Neighbors also hold monthly dialogues with public servants and thought leaders on



- 3
- 4 topics we care about, from community-supported agriculture, to traffic safety, to mitigating the
- 5 unwanted effects of development in our county. We benefit from the generosity of Arlington
- 6 Forest Shopping Center businesses and from neighbors and donors whose hard work and
- 7 collaboration sustain the Lubber Run Amphitheater, Arlington's only open-air performing arts
- 8 venue. Its summer season draws neighbors from across Arlington to enjoy regionally and
- 9 nationally recognized performers.
- 10 It takes a lot of devoted people to create the community we enjoy in the natural environment we
- 11 strive to protect. The residents of Arlington Forest understand why so many house hunters want
- 12 to join us. This revised neighborhood conservation plan articulates our collective appreciation for
- 13 our past, the issues and opportunities we see at present, and our hopes for the future.

## **Acknowledgments and Chronology of Plan Development**

This revised plan reflects the collective efforts of many people over multiple years and even decades. Its basis is the previous plan, submitted by AFCA in November 1990 and approved by the Arlington County Board in May 1991. After 30 years, so much has changed in our neighborhood that a revision of the 1991 plan was due—but why reinvent the wheel? The previous plan was so well designed and written that this plan retains some of the same structure and contents, in part to show continuity. Where the original authors see their own ideas, approaches, or language, it is a tribute to their own outstanding work.

Like the previous plan, this plan follows guidelines outlined by Arlington County’s Neighborhood Conservation Program (for all sources, see appendix D). The guidelines call for discussing public facilities and services used by our residents, even when the facilities and services originate from or are located in areas outside of Arlington Forest, such as schools, libraries, police, hospitals, parks, and more. This plan makes corresponding recommendations for improving the public facilities and services that our residents use and enjoy.

Planning for the revision began in 2018 during the tenure of AFCA President Allison Kennett. Liz Kauffman, the AFCA coordinator for Arlington County’s Neighborhood Conservation Program, assembled a small group of neighbors to begin revising the previous plan. The team established an outline for the revised plan based on the 1991 plan and the most recent guidebook for the Neighborhood Conservation Program.

Next, the team turned to the neighborhood survey required for any neighborhood conservation plan. To get a sense of neighborhood concerns, Julia Battocchi led the team in setting up a SWOT (strengths, weaknesses, opportunities, and threats) exercise for Arlington Forest. Liz Grossman then worked with the team, with help from AFCA President Esther Bowring, to prepare, administer, and analyze a neighborhood survey. Conducted in spring 2020, the survey went to homeowners and households across Arlington Forest; it elicited 187 valid responses (see appendix A), enough for the results to count as statistically sound.

Using the survey results and other materials and information (see appendix D), the team finished drafting the plan. Each section describes conditions in our neighborhood (including challenges and opportunities) and ends with the neighborhood’s recommendations (if any) to the county and ourselves. Most opportunities described in the plan did not rise to the level of neighborhood recommendations. Opportunities became recommendations only after the neighborhood reached a community consensus that they should. Appendix C compiles the recommendations and the corresponding strategies for implementation.

Neighborhood deliberations about the plan took several forms. Many topics of interest that came up at monthly AFCA meetings from 2018 through 2020, some controversial, went into the plan. Individual neighbors reviewed parts of the draft plan, suggesting revisions. Neighborhood goals, a key element of the plan, were reviewed by AFCA officers and voted on at a general AFCA meeting. A draft of the entire revised plan was posted on the AFCA website for neighborhood comment and revision. Portions of the draft plan also appeared in the neighborhood newsletter for comment and discussion at AFCA meetings. After a broad community consensus became clear, the writing team finalized the plan for approval by AFCA.

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Participants in the entire process included Julia Battocchi, Esther Bowring, Larry Bowring, Hutch Brown, Karen Burst, Barbara Englehart, Liz Grossman, David Howell, Liz Kauffman, John Naland, Natalie Roisman, and Bob Strawn. ... Liz Kauffman and Bob Strawn conducted neighborhood walkthroughs for sidewalks, curbs, gutters, streets, and streetlights in need of maintenance. Hutch Brown walked the neighborhood parks many times, noting conditions there. Liz Grossman was instrumental in designing and administering the neighborhood survey, including analyzing and presenting the results. Larry Bowring created the maps of Arlington Forest for the plan.

Liz Kauffman led the entire process of plan revision, with Hutch Brown as editor. Liz also drafted the introduction and the sections on street conditions and traffic/transportation. John Naland contributed the sections on the history and historical preservation of Arlington Forest. Natalie Roisman wrote the section on commercial and business areas; Barbara Englehart added the piece on the Lubber Run Farmers' Market. Hutch Brown drafted the sections on geology and soils, land use and zoning, housing, urban forestry, and public facilities and services; Esther Bowring contributed the piece on the Lubber Run Amphitheater. David Howell, a member of the Park and Recreation Commission and the Urban Forestry Commission and an amateur wildlife photographer, reviewed the sections on parks and urban forestry and contributed many outstanding photo illustrations. AFCA officers Esther Bowring (President), Sean Lyons (Vice President, Southside), Tom Smialowicz (Vice President, Greenbrier), and Joel Yudken, (Vice President, Northside) ... *[others?]* reviewed and commented on the entire draft plan.

Special thanks go to Arlington Regional Master Naturalists Bill Browning, Jeff Elder, David Howell, and Paul Kovenock for information and materials used in writing the revised plan and to Lily Whitesell, Arlington County coordinator for stream monitoring, and Lyndell Core, Arlington County parks area manager, for sharing their expertise on conditions in our neighborhood parks.

### **Geology and Soils of Arlington Forest**

The geology of the area in and around Arlington Forest is complex, in part because our area straddles the border between two physiographic provinces: the Piedmont to the northwest and the Coastal Plain to the southeast. The Piedmont is hilly, with bedrock exposures and fast-moving streams. The Coastal Plain is flat and made up of sediments, with slow and meandering rivers and streams.

In our area, you can see the transition from the bedrock of the Piedmont to the sediments of the Coastal Plain. You can also see the transition in streamflow in what geologists call the Fall Line, which is actually a zone that can stretch for miles. The Fall Line zone for the Potomac River reaches from Great Falls at least to Little Falls (some 5 miles) and conceivably all the way to the tidewater at Roosevelt Island (some 15 miles).

The Fall Line zone for our three neighborhood creeks (Four Mile Run, Long Branch, and Lubber Run) extends throughout our local parks (Bluemont, Glencarlyn, and Lubber Run). The largest abrupt drop, analogous to Great Falls or Little Falls on the Potomac, is Huffman's Falls. At times audible from the W&OD Trail, Huffman's Falls lies in Glencarlyn Park just downstream from the confluence of Long Branch with Four Mile Run.



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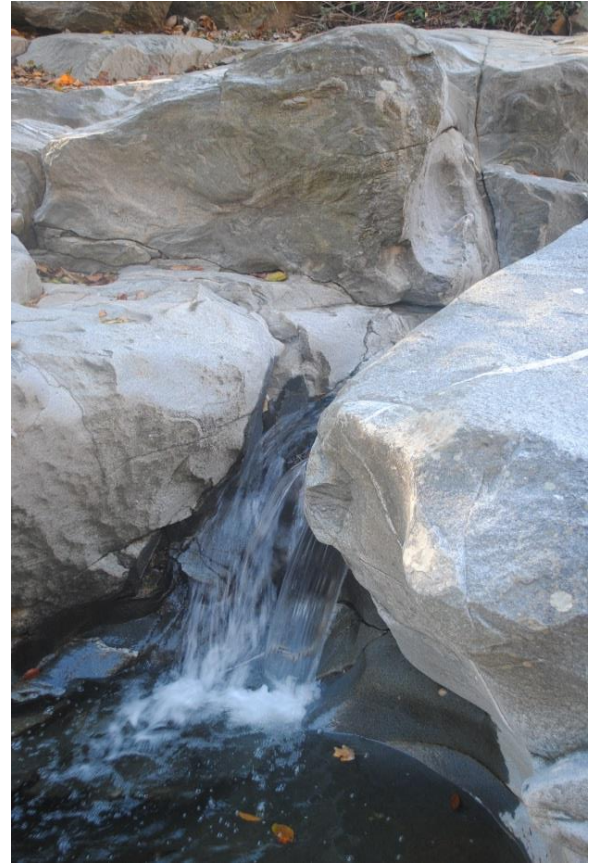
1 The bedrock for Arlington Forest, well exposed at Huffman's  
2 Falls, formed from sands, silts, and rocks at the bottom of a  
3 deep-sea trench about 450 million years ago. The tremendous  
4 heat and pressure associated with colliding tectonic plates—  
5 pieces of the Earth's crust—lifted the deep-sea sedimentary  
6 rock onto the North American continent and transformed it  
7 into what geologists call metamorphic rock. The metamorphic  
8 bedrock in the area of Arlington Forest is called Indian Run  
9 sedimentary melange.

10 The Indian Run rock ranges from gray to brown in color. You  
11 can see lots of glittering mica, along with welded grains of  
12 sand. You can also find embedded rocks of various sizes and  
13 shapes, and in places you can see veins of white quartz,  
14 especially at Huffman's Falls.

15 The metamorphic bedrock contains occasional intrusions of  
16 massive quartz. Because quartz is so erosion resistant, the  
17 intrusions can form huge outcrops, such as Brandywine Castle  
18 along the W&OD Trail upstream from Bluemont Park on Four  
19 Mile Run. One such intrusion underlies part of Greenbrier; you  
20 can find the outcrop near the top of the trail into Lubber Run  
21 Park from North Edison Street. (The black crust on the white  
22 quartz is either lichen or manganese oxide.)

23 Overlying the bedrock is a dense layer of sediments deposited  
24 by ancient rivers from about 100 million to 140 million years  
25 ago. Forerunners of the Potomac, the rivers carried sand, silt,  
26 clay, and cobble (pebbles and rounded river rocks) from  
27 inland and deposited them where the waters  
28 slowed as they approached sea level on the  
29 Coastal Plain. The sediments, known as the  
30 Potomac Formation, start at about Interstate  
31 Highway 66 and gradually thicken to the  
32 southeast. Exposed by erosion along our  
33 creeks, the Potomac Formation looks like  
34 packed sandy or silty soil, often mixed with  
35 rounded river rocks, and it is dense and hard  
36 to pick apart.

37 On top of the Potomac Formation is a much  
38 younger layer of sediments laid down from  
39 about 5 million to 10 million years ago in  
40 the elevated areas where homes are built  
41 today. Geologists call these broad,  
42 relatively flat surfaces terraces, and  
43 "Tertiary" is the name for the geologic  
44 period of the deposits, which are known as



*At Huffman's Falls on Four Mile Run, the metamorphic bedrock is well exposed, along with intrusions of quartz and granite.*

*Photo: Hutch Brown (2019).*



*Potomac Formation, exposed by erosion in Glencarlyn Park near the Long Branch Nature Center.*

*Photo: Hutch Brown (2015).*

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1 Tertiary Terraces. The Tertiary Terrace in Arlington Forest comprises tightly packed yellow-  
2 orange to reddish silty clays mixed with gravel and rounded river rocks.

3 The Tertiary deposits came from rivers meandering across a flat plain. What was once a flat  
4 Piedmont plain became hilly only within the past 5 million years or so due to uplift across our  
5 region. Even today, we are seeing a slow rise of the Allegheny Plateau and Blue Ridge  
6 Mountains to our west and a lesser uplift of the Piedmont. Over millions of years, the uplift  
7 caused our local rivers and streams to cut valleys and gorges into the rising Piedmont plateau.

8 The downcutting force of our streams was magnified by sporadic Ice Ages over the last 2 million  
9 years. Although the glaciers never reached our area, our local streams were locked in ice for  
10 much of the year. Released for only a few months in summer, our rivers and streams became  
11 raging torrents with far greater downcutting power than today. Nothing else can explain Mather  
12 Gorge on the Potomac River or the deep valley gouged by tiny Long Branch in Glencarlyn Park.

13 Overlying the geologic formations in our area are soils associated with what scientists call urban  
14 land. Natural soils separate into well-defined layers (“horizons”), but the layers in urban soils get  
15 mixed up by the digging and churning associated with the construction of roads, houses, and  
16 other parts of the built environment. Urban soils are an amalgam of topsoils and subsoils  
17 influenced by the underlying geology.

18 Most parts of Arlington Forest have an admixture of urban soils and the underlying Tertiary  
19 Terrace materials, such as the rounded river rocks that you might find in your own backyard.  
20 Some residential areas close to Four Mile Run have urban soils with an admixture of deep red  
21 silts and clays weathered from the ancient bedrock (the Indian Run sedimentary melange).

22 As you might expect, our neighborhood parks have more natural soils with better defined soil  
23 horizons than do the upland terraces with  
24 their urban soils. Lubber Run and  
25 Glencarlyn Parks have well-drained  
26 loams containing sands, silts, and clays  
27 weathered from the Indian Run bedrock,  
28 which readily decomposes. Soil scientists  
29 classify the soils in our neighborhood  
30 parks as in the “Manor” and “Glenelg”  
31 soil series. Both are fertile loams with  
32 distinct horizons.

33 The soils on the upper slopes are thinner  
34 and younger than the bottomland soils,  
35 which have a relatively thick upper (“O”)  
36 horizon rich in organic materials. The  
37 underlying (“A” and “B”) soil horizons  
38 contain quartz sands and mica  
39 weathered from the bedrock. The heavy  
40 mica component makes the soils in our  
41 parks especially prone to erosion.



*Urban soils in a newly formed gully at the edge of Lubber Run Park in summer 2019. Undisturbed for 80 years, the soils are starting to form horizons again. Note the pale layer under the organic layer at top and the reddish layer underneath. Note also the rounded river rocks from the underlying Tertiary Terrace. Photo: Hutch Brown (2019).*



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## **History of Arlington Forest**

American Indians were the earliest inhabitants of the area today known as Arlington Forest. Artifacts from 8,500 years ago have been found along Four Mile Run, and a village site has been identified at the confluence of Four Mile Run and Long Branch.

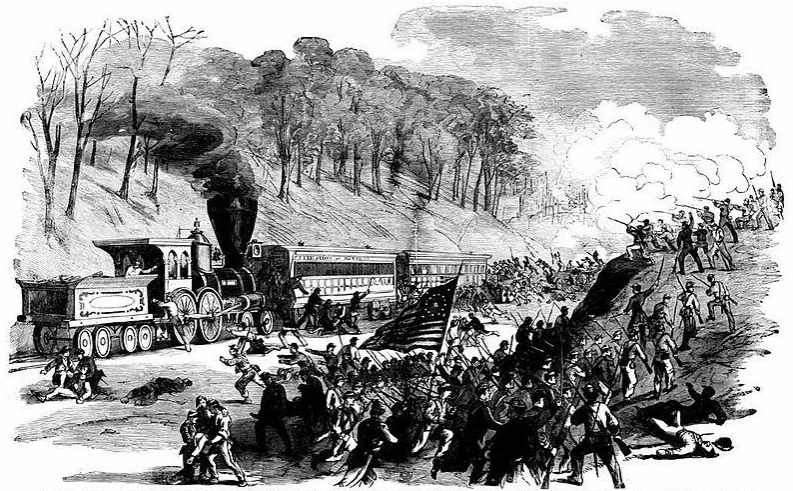
During the 18th century, several large colonial land grants shared a common border at that same stream junction. A large oak tree there was used as a survey marker by one of the landowners, George Washington, who possessed a parcel of land to the south. A weathered marble pedestal without signage now marks the site in Glencarlyn Park, and a section cut from the original oak tree is displayed in the Glencarlyn Library.

Most of the land that is now Arlington Forest belonged to John Colville, a British merchant and planter who owned trading ships along the Potomac in the early 1730s and was active in land speculation in Virginia and Maryland. Colville purchased a 1,400-acre tract on Four Mile Run in 1731; the tract included the lower part of Lubber Branch (now Lubber Run). In 1754, Colville was granted permission to build a gristmill to grind corn and wheat on Lubber Run just above Four Mile Run.

Only a handful of houses were built in the area of what is now Arlington Forest prior to 1894. The three still standing are described below in the section on historical preservation: the Mary Carlin House (built in about 1800); the Charles Mix House (dating to the 1820s–40s); and the Ann Carlin Cottage (erected in about 1850).

In 1847, construction began along Four Mile Run of the Washington and Old Dominion (WO&D) Railway, which extended from Alexandria to the Blue Ridge Mountains. The foundations of some of the pre-Civil War bridges are still in use. During the Civil War, water from Four Mile Run was used to fill train boilers. Train engineers frequently complained that their boilers overflowed with soap suds because thousands of Union soldiers washed their clothes in the creek. Trains rumbled back and forth during the war carrying soldiers, supplies, and casualties.

Along Four Mile Run just south of today's Arlington Boulevard, John Carlin opened a resort in 1872 near the two natural springs there, the Carlin Springs. The resort boasted a dance hall, a 250-seat restaurant and ice cream parlor, and a swimming hole. Visitors came by train from Alexandria and Washington, DC, for the next 20 years until the resort finally closed. WO&D passenger trains through the area continued until 1941, and freight and mail service lasted until the railroad company was disbanded in 1968. The current bicycle and pedestrian trail was opened in the late 1970s.



GENERAL DORRICK C. SCHENCK, WITH THE FIRST REGIMENT, OHIO VOLUNTEERS, FIRED INTO BY A MASKED BATTERY, NEAR VIENNA, VA., JUNE 17TH, 1862.

*Placeholder image*

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As of 1878, the area near Lubber Run that now contains Arlington Forest was occupied by only two families, the William Cipher (or Sypher) and Charles Mix families. In 1893–94, John B. Henderson, Jr., purchased most of what is now Arlington Forest. Henderson’s father, a U.S. Senator from Missouri, was the author of the 13th Amendment to the Constitution (abolishing slavery) and was instrumental in keeping Missouri in the Union. John Henderson, Jr., was a lawyer and diplomat whose primary interests lay in marine biology. In 1894, he constructed a two-story wood-and-plaster Swiss-style house as his country estate. The house, which was destroyed in a fire in 1954, was at 4811 3rd Street North. That location is now covered by the Lubber Run Community Center parking garage.



*Placeholder image*

Prior to the platting (mapping out) of Arlington Forest, the area typified the rural character of Arlington County, containing only fields and woods. A 1934 aerial photograph reveals that the area of Arlington Forest prior to development was wooded except for open fields around the Charles Mix House and Henderson House. Arlington Boulevard (named Lee Boulevard until 1951) was built through the area in the early 1930s.

Arlington Forest was built in stages from 1939 to the 1960s (map XX) [map goes on next page]. Ironically, the developers destroyed much of the wooded scenery during construction, which resulted in a mostly barren appearance not in keeping with the lush surroundings implied by the neighborhood’s name. Over time, the remaining trees matured and new trees were planted, reestablishing a natural canopy reminiscent of the original setting.

Arlington Forest was planned and built by the Meadowbrook Construction Company led by Monroe Warren. Local architect Robert O. Scholtz designed six variations of the same basic floor plan for Colonial Revival homes. The first building permits were issued on July 13, 1939, for a portion of the Southside section. By the end of April 1940, Meadowbrook already had sold 130 homes in Arlington Forest. Construction in Southside continued through the summer of 1940.

In 1939, the first homes, with footprints of 1,144 square feet, sold for \$5,990 each. Fireplaces and detached garages were optional for an additional \$500 each. Buyers needed only a cash down payment of \$590, which included all settlement costs. Loans from the Federal Housing Administration were available at 4-1/2 percent interest for a payback period of either 20 or 25 years. On the 20-year financing plan, monthly payments, including principal, interest, taxes, and insurance, totaled \$42.94. Monthly payments on the 25-year plan were \$38.82.

The second phase of development occurred in 1940 as Meadowbrook crossed Arlington Boulevard into the northern sector of Arlington County east of Lubber Run Park. The Northside section was built on land historically associated with the Henderson family’s estate, with the first

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Northside building permits approved on June 6, 1940. By October 1940, Meadowbrook had sold more than 230 Arlington Forest homes in just 10 months. Building permits for Northside, including the Arlington Forest Shopping Center, continued to be issued through December 1941. An aerial photo of Northside homes under construction appeared in the March 10, 1942, issue of *Life* magazine to illustrate the pre-World War II housing boom in the Washington, DC, area.

The third major part of the subdivision, known as Greenbrier (located west of Lubber Run Park), evolved in nine phases from 1941 to 1946. The first building permits for the Greenbrier section were issued on May 23, 1941. A considerable portion of Greenbrier was approved for construction during and soon after World War II. Wartime material shortages caused modifications to the houses in the central part of Greenbrier, including a slightly smaller floor plan (1,050 square feet). A final phase of construction occurred in 1948 on the western edge of Greenbrier.

House sales were governed by a restrictive covenant: “No persons of any race other than the Caucasian Race shall use or occupy any building or any lot, except that this covenant shall not prevent occupancy by domestic servants of a different race domiciled with an owner or tenant.” Such covenants, common in the United States at the time, were eventually struck down by federal courts.

Arlington Forest builder Monroe Warren donated the land adjacent to Lubber Run (now portions of Glencarlyn and Lubber Run Parks) to the county. It was inaugurated as Arlington’s first public park on October 9, 1942. Warren also moved a large American holly to the traffic circle in front of the Arlington Forest Shopping Center. It stood there until 2017, when it was removed due to poor health.

Several additional small enclaves of homes built from 1950 to 1968 on the borders of the original subdivision are more contemporary in style. In 1950–51, an enclave of one-story brick homes called Forest Park (now known as Broyhill’s Addition) was built on South Edison Street. Brick ramblers were constructed in 1956 on 2nd Street North, just east of North Henderson Road. Four brick ramblers on North Carlin Springs Road were built in 1958. Another group of seven split-levels was erected on the historic Mary Carlin property at 1st Place North in 1967–68.

Kate Waller Barrett Elementary School opened in 1939. The Arlington Forest Shopping Center was built in three phases in 1941, 1946, and 1947. The Arlington Forest Club (organized by Arlington Forest residents but located in Bluemont) opened in 1954. The original Lubber Run Community Center opened in 1956; it was demolished in 2019, with the replacement community center completed in 2020. The Lubber Run Amphitheater opened in 1969.

AFCA was organized in 1940 for the purposes of getting to know neighbors and speaking as a group for the betterment of the community. Over the decades, AFCA has held community meetings eight times a year; organized innumerable neighborhood social events; sponsored many programs to beautify the neighborhood and adjacent public parkland; and responsibly engaged county officials in advocating for improvements to public amenities and safety in areas such as transportation, street lighting, parks, and recreation.

To celebrate its 75th anniversary in 2015, AFCA published a 150-page history that included a year-by-year list of activities, resident reminiscences, maps, and historical photos. The book is

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1 available in the Center for Local History at the Arlington Central Library and its contents are  
2 posted on the AFCA website.

3 The AFCA newsletter, *The Arlington Forester*, is said to be the oldest continuously published  
4 neighborhood newsletter in Arlington County. Begun in 1942 as an oversized printed postcard  
5 with information about meetings, it was expanded to four mimeographed pages in 1947. In  
6 recent years, the newsletter has comprised 12 to 16 printed pages. Copies are delivered to all 852  
7 houses in Arlington Forest eight times a year.

### **NEIGHBORHOOD GOALS**

9 The overarching goal of this neighborhood conservation plan is to help our community preserve  
10 the things that residents like most about living in Arlington Forest. Respondents to our  
11 neighborhood survey in spring 2020 expressed their appreciation for the parklike residential  
12 atmosphere of this rare wooded island in an urban environment. Residents cherish the trees in  
13 our neighborhood and the ability to get out and enjoy them on walks, both along our streets and  
14 in our neighborhood parks. Glencarlyn and Lubber Run Parks contain some of the largest  
15 remnants of natural forest in Arlington County, and Arlington Forest residents have a deep  
16 affection for these rare natural ecosystems. We have a special stake in preserving the health,  
17 beauty, and enjoyment of our entire urban forest, including the trees maintained by homeowners  
18 in their own yards.

19 Another element of high value to residents is the sense of community in Arlington Forest.  
20 Respondents to our neighborhood survey frequently mentioned the same community qualities  
21 they liked, such as quiet, walkability, and the charm of our homes and gardens. In particular,  
22 residents appreciate having good neighbors—people they trust and rely on for support. Our  
23 strong sense of community derives from neighborhood qualities such as common schools, a  
24 common history, and a common and inclusive residential experience, warmly welcoming to all.  
25 Arlington Forest has a neighborhood vibrancy that residents want to sustain and reinforce as a  
26 valuable asset for our county.

27 Location is another highly valued attribute of our neighborhood. Residents prize living in our  
28 community for its convenient commutes to work and for the shops, restaurants, and other  
29 opportunities that lie within walking or easy driving distance. They also value the proximity to  
30 good schools, libraries, and public services of all kinds, along with opportunities for community  
31 volunteering and for enjoying culture and the arts, not least at the Lubber Run Amphitheater.  
32 Residents want to work with the county to keep the summer amphitheater program running  
33 smoothly, in part by getting needed maintenance done.

34 Maintenance of our neighborhood parks is a concern for our community in terms of both  
35 infrastructure (trails, bridges, recreational facilities, and the like) and ecological integrity. Many  
36 respondents to our neighborhood survey listed the effects of stormwater runoff (such as flooding,  
37 erosion, and stream degradation) as a major threat to Arlington Forest. Another neighborhood  
38 concern is sustaining the canopy trees that put the “forest” in Arlington Forest. Loss of tree cover  
39 and the decline of large trees throughout our neighborhood threaten the beauty and integrity of  
40 our community.



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1 Loss of tree cover and open space is tied to the potential for redevelopment in our neighborhood,  
2 a paramount concern for many residents of Arlington Forest. The single biggest threat to our  
3 neighborhood listed by survey respondents was upzoning and overdevelopment, with homes torn  
4 down and replaced by multifamily units, leading to more traffic and noise and less parking, tree  
5 cover, and green space. Loss of so many of the amenities that residents like about living in  
6 Arlington Forest would fundamentally—and permanently—change the character of our  
7 neighborhood for the worse.

8 Arlington Forest celebrated its 80th anniversary in 2019. Despite the rapid growth of high-  
9 density commercial development in the Ballston Metro corridor in recent decades, our  
10 neighborhood reached this milestone with its pleasant wooded residential character essentially  
11 intact. The goal of this neighborhood conservation plan is to help preserve the qualities that have  
12 made Arlington Forest a desirable place to live for the past 80-plus years.

### **LAND USE AND ZONING**

14 Land uses and zoning for Arlington Forest have remained the same for more than 80 years. Our  
15 current land uses date to the founding of our neighborhood in 1939, before which the land was in  
16 rural uses. Most residents of Arlington Forest are satisfied with our legacy land uses and zoning,  
17 but we are aware of the potential for conflict between the status quo and county goals for  
18 development near the Metro transportation corridor at Ballston. The ongoing high-density  
19 development in Ballston, a 15- to 30-minute walk from our neighborhood, is affecting our  
20 neighborhood by forming what planners describe as “Arlington’s new downtown.”

#### **Existing Land Uses**

22 **Map XXX** [placeholder on next page] shows the existing land uses and zoning for Arlington  
23 Forest based on Arlington’s General Land Use Plan for 2020. Our neighborhood has three kinds  
24 of land uses—residential, public, and commercial. Most of Arlington Forest is residential  
25 property with single-family detached homes. The residential areas are categorized as “Low: 1–10  
26 units per acre.” Family homeowners and renters live in houses on small lots, with about five  
27 homes per acre.

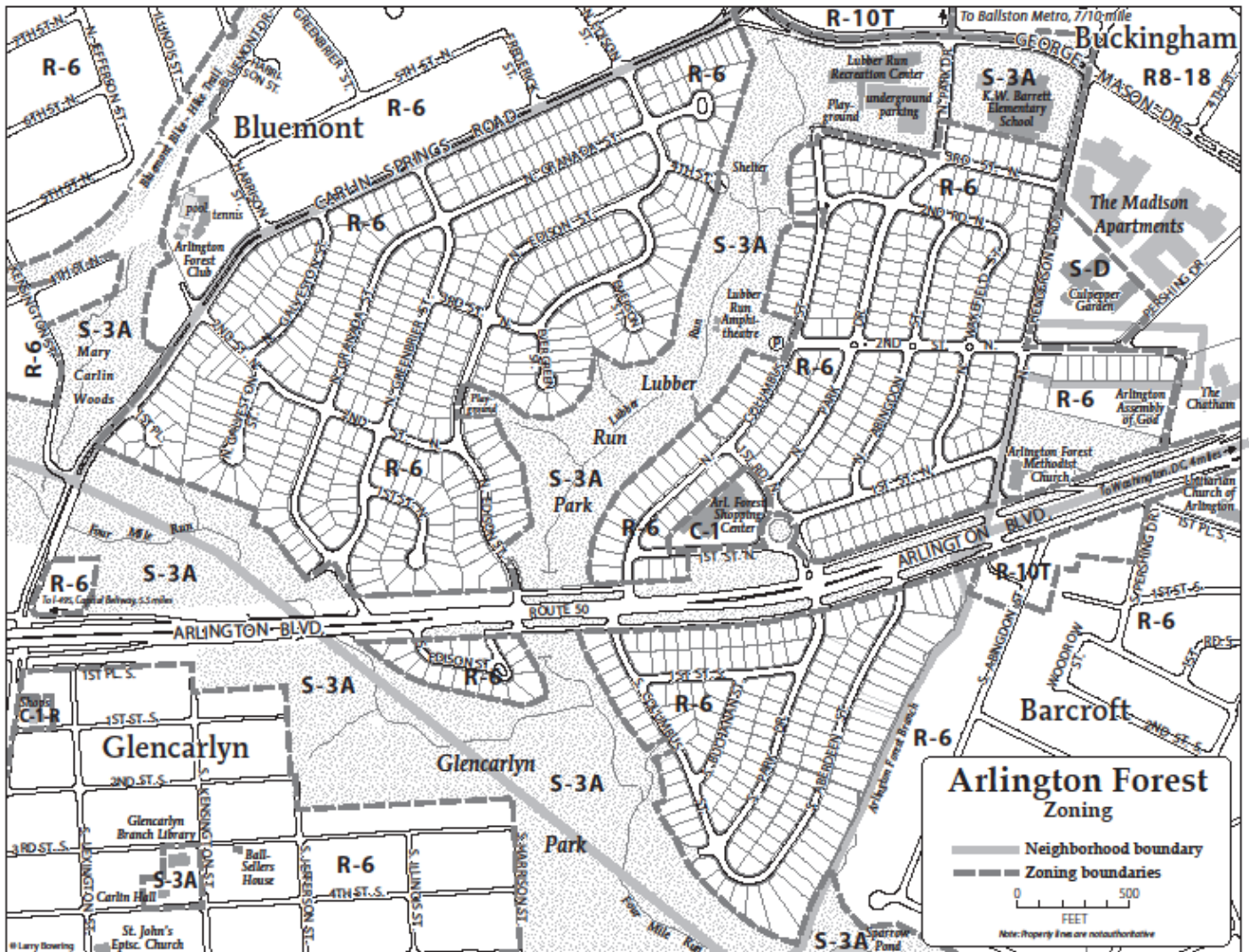
28 Some of Arlington Forest has land uses demarcated as both “Public” and “Public Ownership”  
29 (meaning land and facilities for public use on public property). Most of the area is public  
30 parkland (Arlington Forest Park, Glencarlyn Park, and Lubber Run Park), but it also includes the  
31 Lubber Run Amphitheater, the Edison Park playground, the Lubber Run Community Center,  
32 Barrett Elementary School, the shopping center circle, and the buffer strips along Arlington  
33 Boulevard.

34 The Arlington Forest Shopping Center is located in the center of the community at North Park  
35 Drive and 1st Street North. The land use is “Service Commercial—Personal and business  
36 services.” The one-story structure is one of the National Capital Area’s first strip malls, still used  
37 for commercial shops and eateries. A large parking lot serves the shopping center.

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## County Policy Guidance for Future Land Development

Arlington County's most recent General Land Use Plan, adopted in February 2020, incorporates a longstanding county focus on high-density development in rapid-transit corridors. A central goal is to concentrate development within three major transportation corridors, including the Rosslyn–Ballston Metro line. Ballston itself is being revitalized as a new “downtown center” for



Arlington, with a mix of “residential, office, hotel, and retail facilities and open space,” according to the plan. The highest density uses, including high- and medium-density housing, are to be “within walking distance of Metro stations.”

Because Arlington Forest is within walking distance of the Ballston Metro, residents are concerned that the county might plan to open up our neighborhood to higher density housing. Arlington County is conducting a Missing Middle Housing Study focusing on housing types that fall between the high rises in Ballston and the single-family detached homes of Arlington Forest.

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1 “Missing middle housing” is a term used in public policy for housing types ranging from  
2 townhouses, to duplexes, to multiplexes with three or more units. Prospective occupants include  
3 empty nesters, public servants such as teachers, and young families in need of three-bedroom  
4 housing. To some, Arlington Forest might seem like a logical candidate for rezoning and  
5 redevelopment to help fill the “missing middle.”

6 In 2018, Arlington had 113,084 housing units, according to a report by Virginia Tech that  
7 underpins the Missing Middle Housing Study. The county’s 52,105 high-density housing units  
8 (such as “elevator apartments”) made up 46 percent of the total, and 31,300 “missing middle”  
9 units comprised another 28 percent, for a grand total of almost three quarters (74 percent) of  
10 Arlington’s housing stock. By comparison, Arlington’s 29,487 single-family detached houses  
11 made up just 26 percent. If Arlington already has considerably more “missing middle” units than  
12 single-family detached homes, in what sense are they truly missing?

13 Recognizing the difficulty, the Missing Middle Housing Study decided not to count small  
14 multiplexes as “missing middle housing.” Instead, the study settled on duplexes and townhouses  
15 alone, which together made up about 6 percent of Arlington’s housing, as the “missing middle.”  
16 According to the study, replacing existing housing with duplexes and townhouses will increase  
17 housing affordable to low- and middle-income households, including nonwhite families. That  
18 will increase equity in Arlington’s neighborhoods.

19 However, the demolition of low-rent garden apartments in the Buckingham community adjoining  
20 Arlington Forest and their replacement with townhouses did not create more affordable housing  
21 or greater racial equity. For example, a three-bedroom Buckingham Commons townhouse built  
22 in 2010 was listed at \$890,000 in September 2020, with a monthly payment of about \$3,200.  
23 According to national standards, a household can afford to spend up to 30 percent on housing  
24 (including utilities). By that measure, the listed Buckingham townhouse is not affordable to  
25 households with incomes under \$130,000, which would include the median income levels for  
26 black (\$58,878), Hispanic (\$77,743), and Asian (\$93,660) households shown in the Missing  
27 Middle Housing Study.

28 Real estate markets are driven by location, and the prime location of our neighborhood on or  
29 near major transportation corridors in close proximity to Washington, DC, will inevitably attract  
30 high-income buyers, even for higher density housing like duplexes and townhouses. Other cities  
31 face similar constraints: a study of “missing middle housing” for Portland, OR, found that  
32 seniors were “surprised to see that a newly constructed rowhouse or duplex is no less expensive  
33 than the larger, single-family home they are hoping to leave.” Only subsidized housing can  
34 attract low- to middle-income buyers and renters to the Ballston area; knowing this, the county  
35 required the Buckingham developers to include some.

36 In any case, Arlington’s General Land Use Plan promises to protect communities like Arlington  
37 Forest. Even for high-development districts like Ballston, the plan specifically “tapers densities,  
38 heights, and uses down to the existing single-family residential neighborhoods.” Although the  
39 plan encourages the construction of “townhouses, midrise, and high-rise dwelling units” near  
40 Metro stations, it also promises to “preserve and enhance existing single-family and apartment  
41 neighborhoods.” Through the Neighborhood Conservation Program, the plan would even  
42 encourage the “preservation and revitalization of neighborhood retail areas” such as the

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Arlington Forest Shopping Center. The plan contains a promising throughline of warmth and respect for the historic character of older neighborhoods like Arlington Forest.

### **Existing Zoning**

The three general types of zoning in Arlington Forest are all uniform across the neighborhood for each type—residential, public, and commercial (map XXX).

- **Residential:** R–6, One Family Dwelling District, for all residential properties. Permitted uses include “one family detached” and “churches, mosques, synagogues, and temples.” The minimum lot size is 6,000 square feet, the maximum building height is 35 feet, and the minimum floor area of any dwelling unit is 750 square feet. The maximum lot coverage is 40 percent for the main building and up to 48 percent with porch and garage; the maximum main building footprint is 2,520 square feet and 2,772 square feet with porch and garage. Setbacks for houses are 25 feet from the street, 25 feet from the rear property line, and an aggregate of 18 feet from the right and left property lines (with a minimum of 10 feet on one side and 8 feet on the other).
- **Public:** S–3A, Special District, for all public lands and facilities. The purpose is “to encourage the retention of certain properties in a relatively undeveloped state,” although permitted uses include elementary, middle, and high schools as well as colleges, hospitals, and social service institutions. The maximum allowed height of any building is 45 feet.
- **Commercial:** C–1, Local Commercial District, for the Arlington Forest Shopping Center. The permitted commercial uses are to serve residential neighborhoods, including food services, retail stores, childcare, healthcare, rentals, office space, personal services, vehicle maintenance, and more. The maximum allowed height of a structure is 35 feet, and 10 percent of the site must be fittingly landscaped.

### **Development Potential**

Most residents of Arlington Forest are concerned about potential changes to the single-family character of our neighborhood, which has the development potential for higher density housing if single-family (R–6) zoning were replaced. Most residents enjoy the single-family character of our neighborhood and strongly oppose any change. In our 2020 neighborhood survey, many respondents listed the historical character of Arlington Forest as one of the things they value most about our neighborhood, and 87 percent wanted Arlington Forest to remain primarily single-family detached homes, with only 7 percent opposed (the rest had no opinion). Our strong opposition (12 to 1) to any rezoning and redevelopment of Arlington Forest conforms to the county’s commitment in its General Land Use Plan to “preserve and enhance existing single-family and apartment neighborhoods.” We urge the county to stand by its commitment.

### **Recommendation**

- Arlington Forest strongly supports the current R–6 zoning designation for our residential areas, and we urge the county to keep it in place.



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### **Barrett Elementary School**

Constructed on the northeast corner of Arlington Forest as a traditional red brick schoolhouse, Barrett Elementary School opened its doors in 1939 to serve children in central Arlington. The Barrett school administration has done an excellent job of serving a changing elementary school population, and AFCA has worked to keep the school open during periods of low student enrollment. In addition to educating many of our children, Barrett has served our community as a venue for AFCA meetings and for Arlington Forest's seasonal Saturday farmers' market. Many neighbors also use the Barrett playground. We are grateful for Barrett's longstanding service to our community.

Arlington Forest supports the replacement of unsightly temporary classrooms by permanent additions to the original structure. The temporary classrooms, which have been there for about 10 years, are a sign of overcrowding in our neighborhood schools. The school system's chronic inability to fully accommodate the student body is reason enough for the county to resist any rezoning of our neighborhood that would require even more school crowding.

#### ***Recommendation***

- Arlington Forest supports the current S3-A zoning designation for Barrett Elementary School, and we urge the county to keep it in place.

### **Lubber Run Community Center**

The Lubber Run Community Center occupies about 5 acres adjacent to Lubber Run Park and bordered by North George Mason Drive, North Park Drive, and 3rd Street North. In 1951, Arlington County acquired the site and the large country home that stood there, converting the house into Arlington's first public recreation center. The center burned down in 1954 and was replaced in 1956 by a new community center building. The site featured a popular playground, a picnic area, and basketball and volleyball courts as well as a multistory building with rooms for county programs. AFCA used the building to host our neighborhood's popular winter holiday celebration.

By the 2000s, the community center no longer fully met county and community needs, partly because it did not comply with access requirements under the Americans With Disabilities Act. Planning for a new facility included multiple community meetings from 2015 to 2017. The community helped to decide on the design for a replacement facility and insisted on preserving large parts of the site, including all of the trees on the wooded slope overlooking Lubber Run. The slope was fenced off from construction, as were the grass berm bordering 3rd Street North as well as the corner of North Park Drive and North George Mason Drive, with its large old ornamental cherry trees.

Construction of the new community center, begun in 2018, was completed in summer 2020. The new building has a floor space of 50,000 square feet, with a gym, a fitness center, community meeting rooms, rooms for preschool and recreation programs, a reception area, and offices for county staff. Outdoor recreation spaces include a playground, walkways, volleyball and basketball courts, and open areas of lawn with scattered trees. An underground parking lot has an entryway from North Park Drive. The site features green roofing and a bioretention pond for

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stormwater runoff. Although construction was completed ahead of schedule, reopening the building was delayed until 2021 due to the effects of the coronavirus pandemic on county budgets. The outdoor facilities reopened on time in fall 2020.

As county land used for recreational, educational, and social services, the site is appropriately zoned as S-3A, Special District. In our neighborhood survey, two-thirds of the respondents (67 percent) indicated that they used the previous facilities at least occasionally. Usage will likely increase after the building reopens because the site will contain a greater variety of facilities, many better tailored to neighborhood needs (such as a gym and a workout room).

Arlington Forest commends the county and the contractor for the timely redevelopment of a signature neighborhood facility and for keeping the project and the site's completion on or ahead of schedule. We thank the architect, planners, workers, and everyone else involved.

### ***Recommendation***

- Arlington Forest supports the current S-3A zoning designation for the Lubber Run Community Center, Lubber Run Amphitheater, Lubber Run Park, Arlington Forest Park, and all other parklands and public facilities in our neighborhood. We urge the county to keep the current zoning in place.

### **Arlington Forest Shopping Center**

The Arlington Forest Shopping Center, like other strip malls built in the 1940s, was designed to serve the immediate community and blend in with the architectural and residential character of the neighborhood. As one of the first strip malls in the National Capital Area and a distinctive architectural feature of Arlington Forest, the shopping center contributed to the neighborhood's designation in 2005 as the Arlington Forest Historical District.

Although some respondents to our neighborhood survey expressed concern that services at the shopping center do not meet the needs of the neighborhood, other shopping opportunities abound nearby. Moreover, strip malls are reportedly regaining in popularity for their local convenience. Most neighborhood survey respondents said that the shopping center should stay as it is; majorities rejected the idea of building it out or up, whether with stores, offices, or apartments.

Arlington Forest commends the present owners for their maintenance of the shopping center and for keeping it well occupied by a variety of tenants. The special success of some tenants (such as restaurants) indicates that the shopping center can serve the broader needs of Arlingtonians without exceeding the original developer's conception of a tasteful one-story structure that is harmonious with the style of neighborhood homes. Inappropriate or oversize structures on this site would threaten the residential nature of Arlington Forest.

### ***Recommendations***

- Arlington Forest supports the current C-1 zoning designation for the Arlington Forest Shopping Center, and we urge the county to keep it in place.
- The community opposes any expansion of the Arlington Forest Shopping Center. We urge the county to work with AFCA and with the present owners to preserve the historical

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character of the shopping center and to revitalize it as needed in accordance with its current uses, dimensions, and configuration.

### **Areas Adjacent to Arlington Forest**

The areas adjoining Arlington Forest reflect a mix of uses and zoning, ranging from low-density residential to high-density commercial. Our neighborhood shares a common single-family residential character with the communities of Barcroft to the east and south and Bluemont and Glencarlyn to the west and south. We share common schools, parklands, and recreational facilities (including the Arlington Forest Club on North Carlin Springs Road in Bluemont), and AFCA is eager to work with other neighborhood associations and with the county to protect our common resources based on the benefits we all get and the values we all share. In particular, we urge Arlington to maintain the same R-6 zoning for adjacent neighborhoods that we enjoy ourselves, based on the county's commitment in its 2020 General Land Use Plan to "preserve and enhance existing single-family and apartment neighborhoods."

The neighborhood adjoins two churches: the Arlington Forest United Methodist Church and the Arlington Assembly of God. In addition to serving the broader needs of Arlingtonians for spiritual community, the churches are important social and recreational assets, with community programs for children, youth, and others. We support maintaining the current R-6 zoning for the church properties.

Adjoining our neighborhood on North Henderson Road and 2nd Street North is Culpepper Garden, a high-rise apartment building for residents 62 and older on a nicely landscaped 5-acre property with shrubs, trees, trails, and benches for relaxing outdoors. Designed for affordability, the facility offers apartments for both independent and assisted living. The residents of Arlington Forest are happy to have Culpepper Garden as a neighbor, and we support its ongoing zoning classification of S-D, Special Development District.

The northeast corner of Arlington Forest adjoins recently built multifamily units for both buyers and renters in the Buckingham neighborhood, including subsidized housing for lower income residents. Much of the neighborhood between North Henderson Road and North Pershing Drive is zoned as RA8-18, Multi-family Dwelling District, allowing for duplex and townhouse construction as well as for one-family detached units and semi-detached dwellings. The RA8-18 designation, along with various other commercial and residential zonings to the north of Arlington Forest, fits the county's General Land Use Plan for the Ballston Metro corridor as an area for high-density mixed-use development.

Many of the multifamily units adjoining North Glebe Road and North Henderson Road are two-story buildings separated by open spaces with mature trees and attractively landscaped walkways, typical of the historic Garden Apartment style. With a historical sign explaining the architectural origins of the style, much of the area is zoned as a Historic District. The special zoning will help to preserve this part of central Arlington and protect it from redevelopment. Low- to medium-income residents will continue to be able to afford the housing, helping to fill the "missing middle" in the Ballston area. Arlington Forest supports the special Historic District zoning for the garden apartments near our neighborhood.

## **STREET CONDITIONS**

### **Curbs, Gutters, Sidewalks, and Storm Drainage**

Arlington Forest benefits from its original streets, gutters, and sidewalks, all planned into the neighborhood from the start. The width of most streets allows parking on both sides, and parking spaces are seldom lacking. However, streets near construction sites and nearest the Ballston Metro sometimes crowd with daytime commuters' vehicles. Third Street North now has a 4-hour daytime parking limit adjacent to the Lubber Run Community Center to discourage commuter and other long-term parking.

The neighborhood commends the county departments responsible for maintaining streets. When underground work requires removing pavement, such as when water supply pipes are replaced, new pavement follows quickly.

As expected in a neighborhood "forest," sidewalks near large trees heave from root pressure. The county has ground off the resulting sidewalk unevenness without harming roots. Most neighbors prefer this approach to cutting roots and repouring concrete, which could result in loss of tree canopy. The neighborhood periodically surveys sidewalks for unevenness greater than 2 inches in height and reports the results to county authorities.

Some utility providers have reneged on their responsibility to replace or repair sidewalks removed in order to access underground pipes or wires. Broadband and cable companies regularly leave unsightly bundles of cable on the ground or hanging on posts at eye level. Neighbors who have attempted to resolve these problems with the companies responsible for the work have, in some cases, found that customer service departments' promises to correct the situation ring hollow.

Our curbs and rain gutters have functioned well, at least in normal times. A few recent storms with abnormally high rainfall over short time periods have surpassed the capacity of existing storm drains. The Edison Park renovation, currently under construction, includes stormwater management measures that residents expect to reduce the frequent deep erosion of the unpaved trail into Lubber Run Park. We hope that the new park design and the enlarged resource protection area now planted with trees will also help slow erosion of the Lubber Run tributary below Edison Park and of Lubber Run too.

Where South Columbus Street meets South Park Street, water pools on the north (uphill) side of the road without draining into a storm sewer. The pooling water, though inconvenient for most of the year, freezes in winter into a slick and treacherous hazard, especially for motorists and pedestrians unaware that it is there. When snowmelt refreezes, this pool can become especially large, expanding the danger to residents and motorists.

#### ***Recommendations:***

- Eliminate the pooling water and ice on South Columbus Street where it meets South Park Drive.
- Continue excellent service on residential roads.



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- Continue the current approach of eliminating sidewalk unevenness by grinding the uneven panels without damaging tree roots.
- Assist neighbors in getting responsible utility or cable companies to repair sidewalks after tearing them up and to remove unneeded bundles of cabling from utility strips.

### **Street Lighting**

Dominion Energy owns and maintains Arlington Forest’s colonial-style streetlights. The concrete posts and colonial lamp design and the underground wiring have weathered well over the decades. Most residents are satisfied with both the design and the amount of light cast on streets and sidewalks, which provides good visibility for motorists, cyclists, and pedestrians.

As Dominion Energy updates aging lamps, residents hope to learn about and help make choices regarding light temperature/color; energy efficiency; phased dimming as activity levels wane during the night; light shields to direct the light where it is needed and keep other areas dark, thereby reducing “light pollution;” and smart technologies, such as streetlights able to self-report malfunctions or be adjusted remotely. In its 2020 Streetlight Management Plan, Arlington County proposed a centralized web interface for all streetlight malfunctions. The community supports the county’s initiative, which would apply to both Dominion Energy and county lights.

### ***Recommendations***

- The county should seek Dominion Energy’s full participation in a centralized streetlight malfunction reporting system to optimize repair efficiency and minimize outage time.
- The county should encourage Dominion Energy to work with AFCA to inform and engage residents in choosing replacements for aging streetlights.

## **TRANSPORTATION/TRAFFIC MANAGEMENT**

### **Streets**

Respondents to our neighborhood survey listed the neighborhood’s wide and winding streets and sidewalks among the features of our community that they like most. Sidewalks encourage walking, bringing neighbors together and contributing to the sense of community that survey respondents also greatly valued. In addition, respondents valued proximity to Washington, DC, and to workplaces, shopping, transit, schools, markets, parks, and trails, most of which are accessible by walking or cycling or by a relatively short drive.

### **Biking/Walking Conditions**

Walking and biking have environmental and health benefits, and both are popular in Arlington Forest. In our neighborhood survey, 56 percent of the respondents reported biking at least occasionally and 96 percent reported walking. Cyclists and walkers value both the neighborhood streets and the mixed-use trails in our neighborhood parks, which offer access to much of central and southern Arlington.

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Arlington Forest residents have expressed interest in having a bike sharing company operate in our neighborhood. Park entrances and the Arlington Forest Shopping Center might be good locations. Safe places to secure bicycles at destinations also make biking more viable as a means of transportation. Traffic-calming measures such as curb nubs slow traffic but also block cyclists, who prefer having bike lanes to slow traffic, solving two problems at once. Cyclists appreciate the county's efforts to segregate bike lanes from motorists, especially as traffic increases in high-density corridors.

### ***Recommendation***

- ?

### **Safety Concerns**

Both cyclists and walkers are concerned about traffic safety, especially as traffic gets heavier due to population growth in the Ballston area. Arlington has joined the national Vision Zero Network, with the goal of reducing traffic fatalities to zero. Nevertheless, excessive motorist speeds and failure to stop at marked crosswalks continue to endanger both cyclists and pedestrians. Arlington Forest urges the county to focus on reducing traffic dangers at a number of problem spots.

#### **North Carlin Springs Road**

North Carlin Springs Road, which separates Arlington Forest from neighboring Bluemont, serves the rapidly growing Ballston area. Development in the Metro corridor has increased traffic, making the frequently used pedestrian crossings over North Carlin Springs Road more dangerous. Multiple pedestrians and a cyclist have been injured by cars in recent years, and many have experienced near misses.

Some crossings are especially dangerous. Young people on their way to Kenmore Middle School use the intersection with North Harrison Street, which also serves pedestrians and cyclists of all ages headed to the Arlington Forest Club, Bluemont Park, the Bluemont Junction Trail, and other destinations, including the Ballston Metro and the route 25 southbound bus stop. Hills and curves on North Carlin Springs Road limit line-of-sight visibility; drivers coming from the north curve to their right before seeing the intersection, whereas drivers coming from the south see the intersection only after cresting a steep hill. The posted speed limit is 30 miles per hour, but a radar speed display on the east side of the road at the intersection with 2nd Street North regularly displays speeds of 35–40 miles per hour, and cars pick up still more speed as they crest the hill past the radar sign.

The county responded to such hazards by widening the median strip at the intersection with North Harrison Street, painting zebra crossing stripes, and installing a pedestrian-activated amber rectangular rapid flashing beacon to warn motorists to stop. Pedestrian crossing signs posted north and south of the intersection also tell motorists to slow down. However, drivers often ignore posted speed limits and sail past the flashing lights, unnerving would-be crossers; near collisions have led many residents to give up walking and instead drive the few blocks to the Arlington Forest Club.

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Survey respondents familiar with the North Harrison Street intersection agreed that additional measures are needed to curb speeding. Most who voiced an opinion (52 percent) were in favor of a traffic light at the intersection. (Some of those opposed feared that a traffic light could push additional cut-through traffic onto residential streets.) Short of a traffic signal, the county might:

- install a pedestrian-activated stoplight in place of the amber rectangular rapid flashing beacon, which has proven effective only some of the time;
- better enforce speed limits;
- on both sides of the intersection, post warnings of fines for speeding and for failing to stop for pedestrians; and
- publicize the traffic data that the county uses in making decisions about the intersection.

Another dangerous intersection is at North Edison Street, where residents of Arlington Forest have noticed similar unsafe motorist speeds and failure to yield to pedestrians and cyclists. Southbound motorists, after crossing the bridge over North George Mason Drive, go uphill around a sharp curve to the right. Some pick up speed as they crest the hill, seeing the North Edison Street pedestrian crossing too late to stop. Northbound motorists have a better line of sight, but some also fail to slow down. In response, the county recently installed pedestrian crossing warning signs and a crosswalk at the intersection. Further improvements planned by the county include:

- installing a rectangular rapid flashing beacon crossing;
- installing curb extensions to shorten the crossing distance;
- moving bus stops to the far side of the intersection;
- installing a high-visibility crosswalk;
- improving the ramp in accordance with the Americans With Disabilities Act;
- widening the median strip to reduce vehicle speeds and enlarge the pedestrian refuge area; and
- adding signage and upgrading pavement markings.

Given the variable effectiveness of the rectangular rapid flashing beacon in stopping traffic at the intersection with North Harrison Street, a traffic light might be needed at the North Edison Street intersection, according to residents familiar with the issue. A large majority of survey respondents who voiced an opinion (70 percent) favored a traffic light at the intersection. Failing installation of a traffic light, the county might:

- install a pedestrian-activated traffic light instead of the flashing beacon;
- enforce speed limits more frequently, ticketing those who fail to stop or who exceed the speed limit;
- post traffic fine warnings on both sides of the intersection; and
- publicize the traffic data that the county uses in making decisions about the intersection.

### ***Recommendation***

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### **Arlington Boulevard**

Arlington Boulevard, a major thoroughfare, traverses Arlington Forest, dividing Southside from Northside and Greenbrier. Unlike Interstate 66, Arlington Boulevard has no high-occupancy-vehicle requirements at rush hours, so commuters avoid the rush-hour toll by taking Arlington Boulevard. The heavy traffic poses risks to pedestrians, cyclists, and drivers alike.

During rush hours, eastbound motorists bypass traffic lights and stoppage on Arlington Boulevard by using the service road from South Edison Street to South George Mason Drive. Through-traffic motorists speed and ignore stop signs on this stretch, endangering pedestrians (including school children), cyclists, and local motorists. Heavier traffic in recent years has heightened the danger. The county has an opportunity to reduce the risk by:

- installing “No Through Traffic” signage at entrance points to the service road between South Edison Street and South Pershing Street;
- enforcing stop sign compliance and posting fines for violators;
- posting a speed limit; and
- installing a speed monitor.

The county has recently improved the intersection of Arlington Boulevard with North and South Park Drives by relocating bus stops, widening sidewalks and curb ramps, and narrowing the entryway to the roundabout in Northside. Although the changes have generally worked well, pedestrians and cyclists still face dangers. Pedestrians and cyclists on the crosswalks over Arlington Boulevard report motorists running red lights and failing to yield to pedestrians, either because they fail to see them or because they can’t see the “Yield to Pedestrians” sign at night. The county has an opportunity to illuminate the signs at this intersection after dark and to delay the “Walk” signal a few seconds longer to reduce the chances of pedestrians being hit by red-light runners.

### ***Recommendation***

- ?

### **North Henderson Road**

Residents have noticed speeding along North Henderson Road between Arlington Boulevard and North George Mason Drive. Also, southbound drivers frequently fail to stop at the sign just north of the service road before Arlington Boulevard, endangering people crossing North Henderson Road. The county can take measures to slow traffic on North Henderson Road and make its intersections safer for cyclists and pedestrians.

### ***Recommendation***

- The county should add pavement markings to alert southbound motorists to the stop sign at the service road.

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### **North George Mason Drive**

North George Mason Drive is a major Arlington thoroughfare, and residents have noticed speeding on the road, particularly on the hill between North Carlin Springs Road and North Henderson Road. Large numbers of children going to Barrett Elementary School cross the intersection at North Henderson Road, another busy neighborhood thoroughfare. Crosswalk guards are essential at school opening and closing hours, but children cross at other hours too. Pedestrian-activated walk signals work well as long as drivers don't speed or run red lights.

North Park Drive borders both Barrett Elementary School and the renovated Lubber Run Community Center. When the center's new outdoor facilities open in 2020, they will draw users from across the area, especially after the building opens in 2021. Traffic at the intersection with North Park Drive will grow, with rising risks for motorists, cyclists, and pedestrians alike. Speeding on North George Mason Drive, along with poor visibility for drivers approaching North Park Drive, already make for a risky intersection, which has seen multiple accidents.

Residents familiar with the intersection favor a traffic light there. In our neighborhood survey, 80 percent of the respondents with an opinion called for installing a traffic signal at North Park Drive. In addition to preventing accidents, a traffic light would slow traffic before it reaches the elementary school crossing at North Henderson Drive, making it safer for school children.

### ***Recommendations***

- The county should better enforce the posted speed limit on North George Mason Drive as well as the requirement for drivers to stop at yellow lights.
- The county should install a four-way traffic light at the intersection of North George Mason Drive and North Park Drive.
- On North George Mason Drive before the intersections with North Henderson Road and North Park Drive, the county should add pavement markings warning motorists of a traffic light ahead.

### **Residential Streets**

Many respondents to our neighborhood survey reported through-traffic and speeding problems in Arlington Forest. Almost a third (32 percent) cited through traffic as a problem on their own streets, and almost half (48 percent) cited it on other neighborhood streets; 50 percent reported speeding as a problem on their own streets, and 63 percent saw it as a problem elsewhere in the neighborhood. The county has opportunities to calm traffic and discourage through traffic by ticketing speeders and installing traffic circles, speed bumps or rumble strips, and more visible pavement markings indicating speed limits and upcoming stop signs.

### ***Greenbrier***

During rush hour, drivers bypass the intersection of Arlington Boulevard with North Carlin Springs Road by taking North Edison Street, which gets a lot of through traffic and occasional hot-rodding at night. At times, southbound cars cresting the steep hill speed through the 2nd Street North intersection, then zoom downhill past the Edison Park playground, which attracts



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parents and children at all times of day. A playground warning sign posted just north of Arlington Boulevard fails to focus sufficient driver attention on the need for caution.

Second Street North, a major cross street in Greenbrier, gives drivers limited visibility at its intersections with North Greenbrier Street and North Granada Street. Southbound drivers on North Granada Street have no stop sign, so they occasionally speed through the intersection. Drivers from both directions on 2nd Street North have no stop signs at North Greenbrier Street, so they sometimes speed through that intersection as well.

### ***Recommendations***

- On North Edison Street, the county should install:
  - speed limit signs at both ends of the street in Greenbrier;
  - a traffic circle at the intersection with 2nd Street North, which could double as a watershed retrofit (such as a dry pond);
  - a speed bump or rumble strip on the downhill segment of the street between 2nd Street North and Edison Park; and
  - a speed bump or rumble strip on the downhill segment of the street between North Carlin Springs Road and 4th Street North.
- On 2nd Street North, the county should install:
  - traffic-calming signage (such as Slow, Children at Play);
  - rumble strips;
  - four-way stop signs at the intersections with North Greenbrier and North Granada Streets; and
  - traffic circles at the intersections with both North Greenbrier and North Granada Streets, which could double as watershed retrofits.

### ***Northside***

Residents have noticed speeding on lower North Park Drive as northbound drivers come from the Arlington Boulevard intersection into the roundabout and cross 1st Road North. Dangerous speeds persist despite visible crosswalks, yield signs, and warning signs to slow down.

Moreover, drivers use North Columbus Street as well as North Park Drive to cross between two major thoroughfares, Arlington Boulevard and North George Mason Drive. Residents regularly observe through traffic and speeding on both streets.

To bypass stoplights on Arlington Boulevard, drivers on North Pershing Street sometimes take 2nd Street North and North Park Drive through Arlington Forest. Problems include ignoring stop signs and rounding the traffic circle at North Park Drive and 2nd Street North counterclockwise to shorten the turn.

### ***Recommendation***

- The county should:
  - post speed limits on North Columbus Street and North Park Drive;

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- on both roads, install more traffic circles, which could double as watershed retrofits;
- mark pavement to prompt drivers to slow down approaching the entrances to Lubber Run Park on North Columbus Street and Barrett Elementary School on North Park Drive; and
- install speed bumps or rumble strips before intersections on North Columbus Street.

### **Parking**

Instead of a garage, most Arlington Forest homes have driveways with enough space for at least one car. However, most residents with multiple vehicles also rely on street parking. Only 5 percent of the respondents to our neighborhood survey reported regular parking problems on their own streets, but 18 percent noticed parking problems elsewhere in the neighborhood.

Commuters to Ballston and Metro often leave their vehicles on North Park Drive and adjacent streets in Arlington Forest, and commercial vehicles sometimes park there too. Barrett Elementary School employees compete for the same spaces for daytime parking; before renovation of the Lubber Run Community Center, Barrett employees used its parking lot, but the new parking garage will not accommodate school employees.

Commuters to the National Foreign Affairs Training Center on the corner of North George Mason Drive and Arlington Boulevard sometimes park on Arlington Boulevard service roads and nearby streets, whether to save parking fees or because onsite parking is unavailable. Some use Arlington Forest for daytime parking.

Overall, parking in Arlington Forest is currently sufficient for residents, but many fear rising competition for street parking due to high-density mixed-use development in the Ballston Metro corridor. Of particular concern is the planned mixed-use development across from the Ballston Parking Garage at North Glebe Road and North Randolph Street. If residents and patrons do not get reasonably priced onsite parking, they will almost certainly seek free parking in Arlington Forest four blocks away.

### ***Recommendation:***

- The county should require developers within three blocks of Arlington Forest to provide sufficient onsite parking at reasonable rates for residents and patrons.

### **Mass Transit**

*Being drafted.*

### **HOUSING**

Arlington Forest was built when Arlington County was rapidly changing from farmland into bedroom communities for Washington, DC. Constructed in multiple phases from 1939 to 1946, the original woodframe houses were on lots of about a fifth of an acre each. The first model homes went up in Southside near the intersection of Arlington Boulevard and South Park Drive; several homes there still show the original architecture, with few modifications. All houses in Arlington Forest, including later one-story and split-level homes, were built as single-family detached units. The developer landscaped each property and put in sidewalks as well as water,

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sewers, and electricity. One innovation was putting electrical lines into backyards, thereby freeing sidewalks and frontyards from unsightly poles and lines.

### **Type and Ownership**

All three sections of Arlington Forest (Greenbrier, Northside, and Southside) are largely uniform in terms of history, housing type, and homeownership, with a high occupancy rate and infrequent turnovers. Among respondents to our neighborhood survey, the average duration of residency was more than 20 years. All 852 homes are still single-family detached units, and their original architecture is usually still visible, despite additions to most homes. According to our neighborhood survey, 84 percent of the houses have an addition or one planned, but only 3 percent have an accessory dwelling unit (a separate living unit with a kitchen and bath, either within the home or in a separate building on the property). Our neighborhood survey also indicated that the vast majority of residents in Arlington Forest own the homes they live in. Of the 852 houses in Arlington Forest in the 2010 national census (see appendix B), 701 (82 percent) were occupied by owners, 133 (16 percent) were occupied by renters, and 18 (2 percent) were vacant.

### **Condition**

The overall condition of the housing in Arlington Forest is good. Homes range from few improvements to complete makeovers with multiple additions, but many additions are single and small. Properties are generally well cared for; most have conventional suburban landscaping, with lawn grass and both canopy and understory trees. Many homes and gardens in Arlington Forest stand out for their interest and beauty. For example, a homeowner in Greenbrier converted her yard into a beautiful garden for native plants. The neighborhood has a popular annual home and garden tour featuring recent renovations and innovations to both houses and landscaping.

### **Trends**

Good schools and proximity to jobs have created high demand for housing and soaring home prices in Arlington County, where the median housing value in 2020 (\$669,400) was more than three times the national average (\$204,900). With its convenient location on or near major transportation corridors (Arlington Boulevard and the Metro line in Ballston), Arlington Forest has long been a hot real estate market. Even unimproved original homes can fetch prices three to four times higher than 30 years ago. Despite a market downturn during the Great Recession of 2007–09, the long-term trend for home prices in Arlington Forest shows a steady rise.

With its high prices, Arlington Forest attracts home buyers who can afford to renovate. Because the original houses had only about 1,000 square feet of floor space, many owners have expanded their homes. The trend in other Arlington neighborhoods is to tear down old homes and build new ones, but only one original home in Arlington Forest (in Greenbrier) has been entirely demolished and replaced. Most houses in Arlington Forest instead have additions; 73 percent of the respondents to our neighborhood survey had additions on their homes, and 11 percent were planning one. Some additions have completely changed a property, multiplying the floor space and leaving the original home a small part of the new, much larger structure.

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1 Accordingly, Arlington Forest is part of a  
2 countywide trend to enlarge the footprint of  
3 existing homes. Extending the footprint of a  
4 home expands the area of impervious  
5 surfaces in the county, contributing to  
6 flooding with every major storm. Home  
7 damage can result, along with erosion and  
8 stream degradation in our neighborhood  
9 parks. Moreover, large additions can affect  
10 neighboring properties by blocking views,  
11 keeping out sunlight, and damaging trees  
12 during construction. Tree roots can extend  
13 three to four times beyond the area of the  
14 dripline, well into neighboring yards for large  
15 trees, where they are susceptible to damage  
16 by construction equipment. When planning  
17 an addition, homeowners should take such  
18 considerations into account, including  
19 potential impacts on their own trees.



*A newly completed makeover of an original Arlington Forest house in Southside, with a new garage on the side and a large addition on the back. A sizable oak on the corner apparently died during construction.*

*Photo: Hutch Brown (2020).*

20 Another trend affecting our community is  
21 changing demographics. Arlington County has a history of racial segregation in neighborhoods  
22 like ours. The original covenant for homeowners in Arlington Forest limited residency to people  
23 of “the Caucasian Race” except for “domestic servants of a different race.” That began to change  
24 after a court found such covenants to be unenforceable—and especially after Congress passed  
25 civil rights legislation in the 1960s. Today, our neighborhood warmly welcomes residents from  
26 all backgrounds. The proportion of nonwhite residents in Arlington overall rose from 5 percent  
27 in 1950 to 28 percent in 2010, with most of Arlington showing nonwhite residency rates of 10  
28 percent or more. In the 2010 census (see appendix B), nonwhite residency in Arlington Forest  
29 was 18 percent, including 7 percent Hispanic, 5 percent Asian, and 2 percent black.

30 As home prices have climbed in Arlington Forest, our neighborhood has become increasingly  
31 unaffordable for middle-income home buyers, a concern for many residents. Pricy new high rises  
32 in Ballston and new multifamily developments in the area reflect similar trends. Within the past  
33 10 to 15 years, for example, townhouses for high-income buyers and renters in neighboring  
34 Buckingham have replaced traditional garden apartments for low- to medium-income renters.  
35 Although some units were set aside for subsidized housing, many residents of Arlington Forest  
36 are worried that the Ballston area is becoming more exclusive and less diverse.

37 Arlington County’s Missing Middle Housing Study suggests a solution: rezoning neighborhoods  
38 like Arlington Forest to allow homeowners to convert homes into higher density housing types,  
39 particularly duplexes and townhouses. In theory, expanding the number of units in Arlington  
40 Forest would lower prices and create more affordable housing, for greater neighborhood  
41 diversity.

42 But location counts. Unless demand for housing is elastic (declines when supply rises), prices in  
43 our neighborhood will remain high, no matter what. We see no sign of elastic demand near  
44 Arlington Forest: the construction of upscale townhouses in adjacent Buckingham added units

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without making the housing more affordable or attracting diverse residents. Replacing an 80-year-old original home in Arlington Forest with upscale multifamily units so conveniently close to Washington, DC, might even drive up prices. In real estate markets, location drives price, and Arlington's prime location attracts renters and home buyers from across the metropolitan area. The location of Arlington Forest is simply too good for anything but subsidized housing to attract lower income residents to our neighborhood.

Across northern Virginia, urban sprawl contributes to the spread of impervious surfaces and the loss of watershed health, open space, and biodiversity, another regional trend. In response, Arlington County is concentrating development near transportation corridors such as the Metro line at Ballston. Although many residents of Arlington Forest welcome efforts to reduce urban sprawl, they are also concerned about the consequences of increased residential density for our neighborhood. In our neighborhood survey, the overwhelming majority of the respondents (87 percent) favored keeping Arlington Forest as a neighborhood of single-family detached homes.

The issue looms large for many residents. Many survey respondents listed upzoning and overdevelopment—especially the conversion of single-family houses into multifamily units—as a major threat to the neighborhood. Many residents of Arlington Forest fear a permanent change to the character of our neighborhood if homeowners were free to sell their homes to townhouse developers or to rebuild their homes into duplexes or multiplexes on plots that are already small, with limited open space.

Redevelopment might seem like an opportunity to improve stormwater management on a site. However, redeveloping a residential site does nothing to improve Arlington's antiquated system of storm sewers, and redevelopment typically expands the built environment at the expense of open space. Our neighborhood's R-6 zoning, for example, limits lot coverage for a single-family detached home to 40 percent. By contrast, the lot coverage limit goes up to 56 percent for duplexes and townhouses. Offsets such as pervious pavers would at best mitigate the overall rise in impervious surfaces and the corresponding decline in large trees and watershed function.

Although the advantages of densification for Arlington Forest are not obvious, the disadvantages would be severe. In addition to sacrificing the neighborhood's historical single-family character, the tradeoffs would include:

- stepped-up conversion of open space to impervious surfaces, exacerbating the adverse effects of stormwater runoff on local homes, regional watersheds, and Chesapeake Bay;
- the loss of neighborhood trees and other vegetation, along with their biophilic, social, economic, and environmental benefits;
- higher demand for public services, including more crowded parks and recreational facilities and increased pressure on already overcrowded local schools;
- more potential use of housing in Arlington Forest for commercial purposes such as rentals and AirBNB, further altering the residential character of the community; and
- more neighborhood traffic and demand for parking, including the possibility that the residents of Arlington Forest would have to start paying for street parking.



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Arlington Forest does not take such tradeoffs lightly, and we acknowledge the need to take them into account in working with the county on any future development in our area. That includes any prospect of rezoning our neighborhood, which we strongly oppose.

### **Recommendations**

- The county should respect and protect the listing of Arlington Forest on the National Register of Historic Places, including its character as a community of single-family detached homes.
- When planning a home expansion, residents should:
  - work with neighbors to take a full range of values and impacts into account, including the health of large trees;
  - avoid seeking waivers for county-mandated offsets in order to conserve open space; and
  - offset any expansion of impervious surfaces with stormwater mitigation measures such as installing swales and rain gardens and planting more trees.

## **PUBLIC FACILITIES AND SERVICES**

Arlington County has a reputation for high-quality schools and parks, and the residents of Arlington Forest are generally satisfied with Arlington’s schools and other public facilities and services. For most facilities and services, the rate of satisfaction in our neighborhood survey was 60 percent or higher and the rate of dissatisfaction negligible (in the single digits). A countywide survey in 2018, with participation by residents of Arlington Forest, found similarly high rates of satisfaction with the quality of county services (88 percent) and with the overall quality of life in Arlington (86 percent).

Arlington Forest appreciates the outstanding service by our public employees in Arlington County, including our teachers, librarians, park managers, police and other first responders, and everyone else. Some of them live in our neighborhood and count as our highly valued neighbors. We especially value their ongoing dedication and service during the coronavirus pandemic.

### **Schools**

Most Arlington Forest children attend our local public schools. Elementary school children are zoned to Barcroft Elementary School (for Southside) and Barrett (for Greenbrier and Northside). Older children and teenagers are zoned to Kenmore Middle School (for grades 6 to 9) and to two different schools for grades 10 to 12: Wakefield High School (for Southside) and Washington–Liberty High School (for Greenbrier and Northside). Other school choices are also available in Arlington, including Arlington Traditional School, H–B Woodlawn Secondary Program, Key Elementary School, and more.

Barrett is located in Arlington Forest. Barcroft is in the adjoining community of Barcroft, and Kenmore is in Glencarlyn on South Carlin Springs Road; both are within walking or biking distance from Arlington Forest. Washington–Liberty is off North Quincy Road near the

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Arlington Central Library, and Wakefield is on South George Mason Drive between Four Mile Run Drive and Leesburg Pike. All five schools offer busing to and from school.

The residents of Arlington Forest are generally happy with their schools. In our neighborhood survey, many mentioned schools as one of the things they value most about living in Arlington Forest; 60 percent expressed satisfaction with our local schools, and only 7 percent were dissatisfied. General satisfaction applies to the whole range of schools chosen by Arlington Forest parents.

Discussing the whole range of schools chosen by Arlington Forest parents is beyond the scope of this neighborhood conservation plan. This plan focuses on the two elementary schools zoned to our neighborhood, which serve the overwhelming majority of our elementary school children. As focal points for many Arlington Forest families, our two local elementary schools help to shape the character of our community.

### **Barcroft Elementary School**

A four-room red brick schoolhouse, the core of today's Barcroft Elementary School opened its doors in 1925 on South Wakefield Street in Barcroft. Located on a 5-acre site, the school gradually expanded, adding rooms and facilities from 1945 to 1987 to accommodate a growing student body. School enrollment has fluctuated since the 1990s but has averaged well over 400 students, about where it stands today.

The school serves children from kindergarten through 5th grade. The facilities, all in good repair, include a gym and plenty of playground space for children of various ages and abilities. The school is fully compliant with the Americans With Disabilities Act.

### **Barrett Elementary School**

Located on the corner of North George Mason and North Henderson Drives, Barrett serves children from prekindergarten through 5th grade. Constructed in 1939, the original red brick schoolhouse was greatly expanded in the early 1990s with a modern addition, partly to make the school fully compliant with the Americans With Disabilities Act.

The site is large, about 4 acres in size, with plenty of playground space and facilities for children of multiple ages and abilities. The outdoor areas include well-tended gardens and trees for learning and enjoyment. Some garden areas are integrated into the school curricula.

School enrollment has shown an overall rise in recent decades, from just over 300 students in 1990 to more than 550 students today. With the growth of school enrollment in the late 2000s, the school placed a temporary structure with several classrooms onto the playground in its rear.

### **Libraries**

The Arlington Public Library serves Arlington Forest through a central building located on North Quincy Street in Ballston and eight branch libraries in various locations around the county. The residents of Arlington Forest are happy with our public library services, with 86 percent expressing satisfaction in our neighborhood survey.

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Some residents of Arlington Forest use the nearest branch library, a small facility in the neighboring community of Glencarlyn. Established in the late 19th century, the Glencarlyn facility was Arlington's first library. Most neighbors use the more extensive resources of the central library. The large two-story brick building is within walking or biking distance of Arlington Forest and less than 10 minutes away by car. Users can find plenty of parking in lots on the edge of Quincy Park or in the underground garage.

Ramps and elevators make the building wheelchair accessible. The library also has services for the visually and hearing impaired, including audiobooks and books in large print. Interlibrary borrowing services are available. The library catalogue is online, with plenty of terminals and self-checkout as well as online borrowing. Collections for children and teens are available, as is a collection of videos for children. The library has plenty of tables and chairs, including comfortable sitting areas and areas where students can work with tutors. Rooms and an auditorium are available for meetings and events by community groups.

The Arlington Public Library supports the Little Free Library Project, a free book-sharing service. Several residents of Arlington Forest have set up boxes along sidewalks where neighbors can donate and borrow books on the honor system.

### **Parks, Open Space, Recreation, and Beautification**

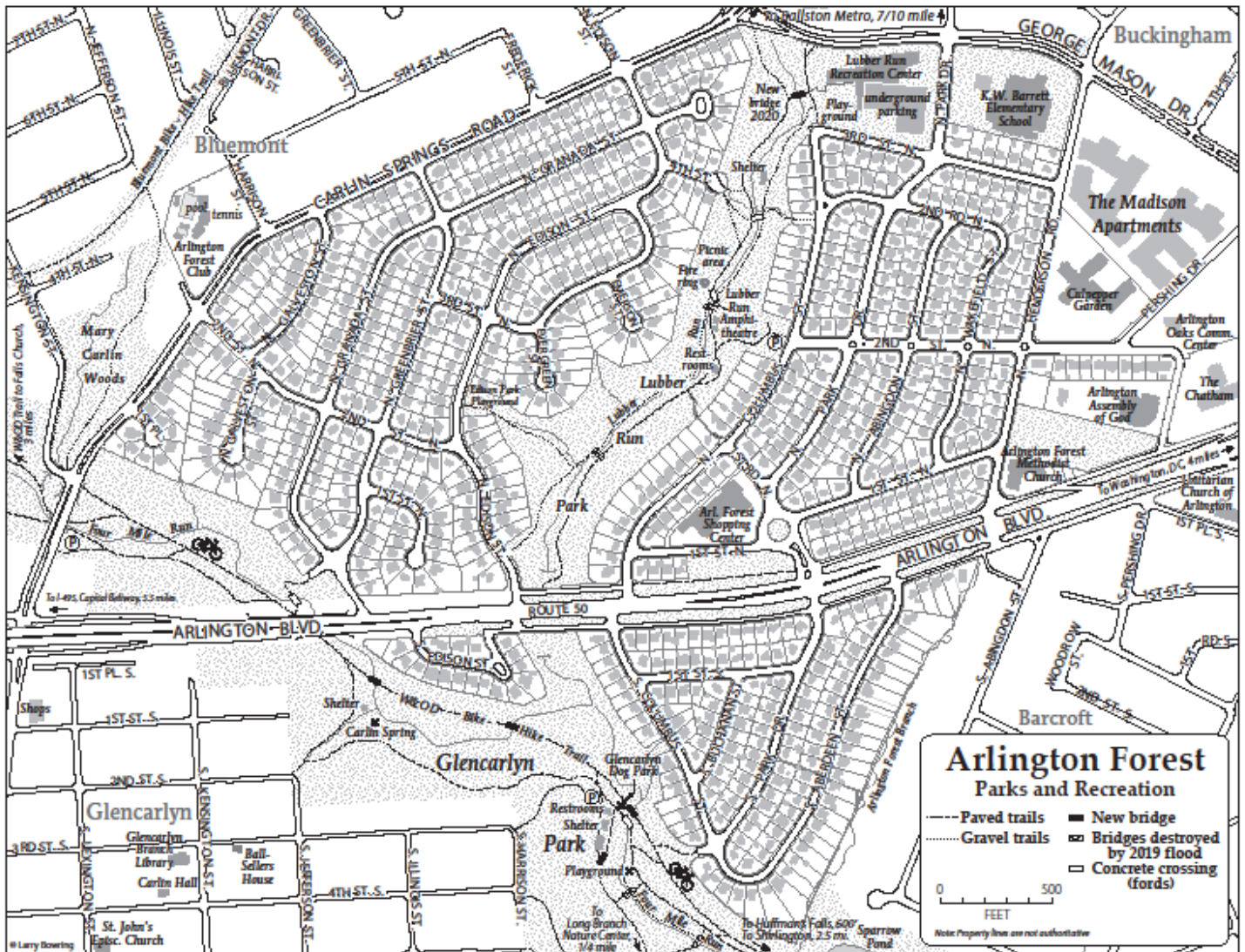
The parks in Arlington County enjoy a solid reputation. In Arlington's 2018 countywide survey, 85 percent of the respondents expressed overall satisfaction with the quality of the county's parks and recreation programs. The four local parks frequented by Arlington Forest residents are (map XXXX) [placeholder on next page]:

- Bluemont Park (70 acres), which lies along Four Mile Run to the northwest of North Carlin Springs Road and includes sports facilities and a large playground;
- Bluemont Junction Park (15 acres), which shares the greenway corridor with Bluemont Park, separated from it to the east by the W&OD Trail;
- Glencarlyn Park (97 acres), which lies to the southeast of North Carlin Springs Road along Four Mile Run and contains natural areas and the Long Branch Nature Center; and
- Lubber Run Park (31 acres), which bisects Arlington Forest and includes or abuts two major county facilities—the Lubber Run Community Center and the Lubber Run Amphitheater.

Within our neighborhood boundaries, Arlington Forest contains all of Lubber Run Park and parts of Glencarlyn Park (map X). However, we consider all of our local parklands to be part of our larger neighborhood because we use them so heavily, sharing them with other neighborhoods for their outstanding amenities and recreational facilities. In our neighborhood survey, almost all respondents (99 percent) reported frequent or occasional use of Lubber Run Park. Large majorities also used Bluemont Park (88 percent), Glencarlyn Park (81 percent), and the cross-cutting W&OD Trail (94 percent).

Bluemont Park, Bluemont Junction Park, and Glencarlyn Park all occupy the greenway corridor along Four Mile Run. The centerpiece of the greenway is the W&OD Trail, a paved trail built on

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- 1
- 2 the 19th-century foundations of the old W&OD Railroad. The railroad's 100-foot right-of-way
- 3 belongs to the Northern Virginia Regional Park Authority (NOVA Parks), which manages the
- 4 45-mile-long W&OD Railroad Regional Park. The regional park contains both the W&OD Trail
- 5 and the adjacent high-tension powerlines operated by Dominion Energy, with county parkland
- 6 on both sides.
- 7 Other open spaces frequented by Arlington Foresters include the grounds of the Lubber Run
- 8 Community Center, Barrett School playground at North Park Drive and North George Mason
- 9 Drive, Edison Park playground on North Edison Street, and Arlington Forest Park adjacent to the
- 10 Arlington Forest Shopping Center.

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## **Community Priorities for Parks**

The parks and other open spaces in or near Arlington Forest are an essential feature of the neighborhood and the key to its character. Many residents chose to purchase homes in the neighborhood, in part, for its easy access to these refuges from urban living. In our neighborhood survey, many residents listed our local parks and recreational facilities as things they value most about living in Arlington Forest. Almost all residents use them at least occasionally.

The residents of Arlington Forest agree that the natural resources in our neighborhood parks, including both aquatic and terrestrial ecosystems, should be protected through high standards of maintenance grounded in a sophisticated understanding of the principles of urban park management. We support the principles of biophilic planning and design, such as conserving natural resources and expanding natural elements within Arlington's built environments. In addition, we recognize that recreational facilities within the parks, including trails, playing fields, and structures, must be periodically maintained and upgraded.

The use and enjoyment of green space, including undisturbed natural areas, and of excellent facilities for outdoor recreation are high priorities for Arlington Forest. As a community, we are privileged to have nearby county facilities that meet a wide variety of needs and are regularly used by people of all ages and abilities. In recognition of our own responsibility, AFCA organizes periodic cleanup walks along our neighborhood streams. In a way, the parks are the soul of Arlington Forest and should not be neglected or abused.

## **Park Maintenance**

The parks contain splendid natural areas as well as developed spaces such as playgrounds and picnic areas (map XXXX). Bluemont Park also contains large grass fields and other sports facilities. The residents of Arlington Forest commend the county for managing the parks for so many benefits, including their natural beauty and ecological integrity. We also commend the county for the variety of recreational facilities available in the parks.

However, many respondents to our neighborhood survey registered concern about park maintenance. Less than half (47 percent) expressed satisfaction and more than one in five (21 percent) were dissatisfied with park maintenance, perhaps reflecting the aftermath of heavy flooding in summer 2019. Eighty-nine percent reported that long delays in replacing washed-out bridges were a threat to user enjoyment of our neighborhood parks.

On July 8, 2019, a severe storm brought torrential rains to Arlington. More than 3 inches of rain fell in an hour, equaling the county's average annual precipitation for the entire month of July, with rainfall intensity reaching 7 to 9 inches per hour at times. Partly because Arlington has impervious surfaces on about 43 percent of its land area, much of the rainfall poured into streets, basements, and storm sewers. Stormwater runoff turned our neighborhood creeks into raging torrents, flooding neighborhood parks, toppling trees, and washing out trails and bridges. Heavy stormwater runoff overwhelmed storm drains at the foot of 3rd Street North and opened a new gully at the edge of Lubber Run Park, threatening the unpaved trail east of Lubber Run.

The toppled trees were soon removed and the trails were cleared of sand and silt, but much damage remained. In Glencarlyn Park, two metal bridges over Four Mile Run were destroyed. In



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Lubber Run Park, two of the three metal bridges over Lubber Run were entirely washed out, and the third remained unsafe and unusable. The storm blocked up one of the two fords—low concrete bridges—over Lubber Run, so that only one of the five crossings over Lubber Run remained fully functional. Lower sections of a popular unpaved trail west of Lubber Run were also washed out, as were improvements by a Boy Scout project to the well-used unpaved trail east of Lubber Run. The county did not begin to repair much of the damage for months.

Historically, the probability of storms as severe as the July 8 flood has been low—less than 1 percent in any given year. But warming temperatures associated with climate change will likely increase the probability of severe storms. In our neighborhood survey, 79 percent of the respondents expressed concern about changing climate and unusual weather patterns. We urge the county to gear up for maintaining and repairing park facilities at a time of growing threats from severe weather events. That includes renovating and improving trails, bridges, playgrounds, picnic areas, and other facilities to withstand increasingly severe storms and floods.

Through Boy Scout projects in Lubber Run Park, the community has worked with the county to maintain and improve our local unpaved trails. The county has an opportunity to work with AFCA and other citizens associations in our area to find ways to collectively contribute ideas and resources for improving and better maintaining our park infrastructure at a time of growing challenges associated with climate change. That includes ideas for expanding neighborhood buffers from the effects of severe storms, such as stormwater management measures.

The high-tension powerlines along the W&OD Trail detract from the greenway's natural beauty for both park users and adjacent homeowners. Although the poles are on property under the jurisdiction of NOVA Parks in collaboration with Dominion Energy, they affect neighboring homeowners and visitors who come to enjoy the natural landscapes of the parks. Chipped paint on some of the poles suggests a possible need for scheduled repainting soon. The neighborhood would like the visual intrusion of the poles to be mitigated by painting them a color (other than the current battleship gray) that would blend in more with their forested backdrop.

### ***Recommendations***

- The county should join AFCA and other neighborhoods in strategizing on how to respond to vulnerabilities of park infrastructure to severe weather events and what we can do together to mitigate the threat, such as repositioning and “hardening” the infrastructure.
- The county should join the neighborhood in requesting that the power poles between Columbia Pike and North Carlin Springs Road (where they are located in a wooded valley against a backdrop of trees higher than the poles themselves) be repainted in a more natural color that blends in with the surrounding trees.
- *Other?*

### **Park Trails**

Our neighborhood parks have many well-used trails (map XXXX). The paved W&OD Trail, the centerpiece of the greenway corridor along Four Mile Run, gets the heaviest use. In the vicinity of Arlington Forest, the trail follows the creek from Bluemont Park downstream through Glencarlyn Park; both parks have additional paved and unpaved trails, including deer trails. The

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1 paved Bluemont Junction Trail leads northeast from the W&OD Trail toward Rosslyn and  
2 connects to a little-known unpaved trail through Mary Carlin Woods.

3 In Glencarlyn Park, a paved trail leads from the Long Branch Nature Center down to Four Mile  
4 Run, where it connects to the W&OD Trail through side trails and fords (low concrete bridges).  
5 By connecting with an unpaved trail near the Long Branch Nature Center, you can walk through  
6 old-growth forest down to the historical marker for Carlin Springs on Four Mile Run. Lubber  
7 Run Park has a paved trail along Lubber Run paralleled by well-used unpaved trails on both  
8 sides of the creek.

9 The paved trails in our parks are used by pedestrians, joggers, skaters, and cyclists for both  
10 recreating and commuting. In our neighborhood survey, 96 percent of the respondents reported  
11 walking often or occasionally and 56 percent reported biking. Arlington Forest commends the  
12 county for its leading role in managing a popular and effective system of trails and bridges in our  
13 neighborhood parks, including signage for safety and for reducing user conflicts.

14 Some paved trails in our parks—especially the W&OD Trail—have become crowded on  
15 weekends and holidays, and cyclist speeds are not always appropriate for shared-use trails. Signs  
16 along the W&OD Trail ask cyclists to slow for pedestrians, but some do not, even when trail use  
17 is high. In 2017, NOVA Parks commissioned a study of the section of the W&OD Trail from  
18 Falls Church to North Carlin Springs Road. The study found user conflicts and safety issues. In  
19 response, NOVA Parks is planning on widening portions of the trail near Falls Church and  
20 building a dual-trail corridor, with a divider separating a bike trail from a pedestrian trail.

21 Dual-trail construction might be extended through Bluemont Park to improve safety and reduce  
22 user conflicts. The tradeoffs would include construction damage to natural areas, including loss  
23 of trees, and the expansion of impervious surfaces along Four Mile Run, a badly degraded  
24 stream. Moreover, a divided trail might encourage faster cycle speeds and even less courtesy in  
25 sharing multiple-use facilities.

26 The trails in our neighborhood parks cross streams on foot bridges of two types. The low  
27 concrete fords are flood resistant but can clog up in storms; water can then pour over them for  
28 days or weeks at a time, rendering them all but unusable. Higher bridges made of wood and  
29 metal, though more reliable and attractive, have tended to wash out in floods. Less vulnerable are  
30 the bridges along the W&OD Trail, built on the sturdy elevated foundations of the W&OD  
31 Railroad.

32 The Lubber Run crossings are needed by residents to connect Greenbrier to Northside and to  
33 reach neighborhood schools, shops, playgrounds, and bus stops. In Lubber Run Park, the county  
34 replaced an unsafe metal bridge below 3rd Street North in May 2020 as part of renovating the  
35 Lubber Run Community Center. In July 2020, the county approved a 1-year Capital  
36 Improvement Plan containing funds for replacing metal bridges in Lubber Run and Glencarlyn  
37 Parks, pending approval of a bond by voters in November.

38 The heavily used ford near the Lubber Run Amphitheater, clogged by the July 8 flood, remained  
39 inundated and all but unusable for months. Although the county made temporary repairs, the ford  
40 has a long history of failures following even moderate storms; several storms in summer 2020

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again left the ford flooded for days. The county has an opportunity to repair or replace the ford once and for all, just as it replaced the failing upstream ford near the Lubber Run pavilion.

The well-used unpaved trail west of Lubber Run is in danger of being entirely washed out in its lower portions by future floods. Temporary repairs to washed-out portions of the trail are unsustainable; although they survived flooding following summer storms in 2020, the repairs are in danger of being overwhelmed at any time by future floods. The county has an opportunity to move and rebuild the trail, although there are no obvious routes on the steep hillside and there might be serious environmental damage if the trail was moved uphill. In time, the trail might be rebuilt in connection with restoring the Lubber Run streambed to reconnect it to its floodplain.

The residents of Arlington Forest oppose any further paving of trails to keep from encouraging their use by cyclists and to slow the spread of impervious surfaces. We also oppose bike riding on unpaved trails because it compacts and erodes vulnerable soils and damages vegetation, including tree roots.

The county has several opportunities for improving or obliterating unpaved trails in our local parks:

- **Bluemont Park**—The park extends northeast from near the North Carlin Springs Road overpass along a brook that originates from storm sewers behind the Arlington Forest Club (map XXXX). The brook drains a 7-acre tract of forest designated in 2015 as Mary Carlin Woods. A poorly maintained trail in this little-known woodland leads northeast along the brook from North Kensington Road to North Harrison Street. The trail connects (albeit unclearly) to the paved Bluemont Junction Trail in the north; in the south, it comes out near a paved spur trail to the Bluemont Junction Trail and near an unpaved spur trail across North Carlin Springs Road leading to the W&OD Trail. The county has an opportunity to improve the trail to protect its fragile bottomland soils and to use signage to better connect it to nearby paved trails for a much nicer nature walk than along the paved trails alone.
- **Bluemont/Glencarlyn Parks**—The trail through Mary Carlin Woods has a side trail created by mountain bikers, who have built jumps into the area near the brook, tearing up the bottomland soils. Bikers also use an extension trail across North Carlin Springs Road along the north bank of Four Mile Run below Greenbrier, creating jumps and turns and thereby tearing up soils while placing themselves at risk of serious injury in a fall. This trail traverses a seasonal wetland near the ford over Four Mile Run below North Greenbrier Street; the wetland deserves special protection for its rare wildlife habitat. Signs are posted on both trails forbidding bike use, and the county could impose fines for violations. The county also has an opportunity to obliterate both trails by positioning downed trees and branches to discourage use.
- **Glencarlyn Park**—A potential new trail (now a deer trail) could connect Lubber Run Park across Arlington Boulevard to Glencarlyn Park by following Lubber Run from the south end of its culvert under Arlington Boulevard to its confluence with Four Mile Run. Deer trails crisscross the little-used area, which has historical significance: in the late 19th century, the two streams joined to form a deep pool, a swimming hole that served the historic amusement park at Carlin Springs. An unpaved trail built from the service road on Arlington Boulevard down to the confluence of Lubber Run and Four Mile Run might connect by ford or bridge to the maintained unpaved trail that currently leads from the old swimming hole up to the

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W&OD Trail. A historical marker could explain the swimming hole as a centerpiece of the old amusement park.

### **Recommendation**

- The county should repair or replace the washed-out trail in Lubber Run Park and the bridges in Lubber Run Park and Glencarlyn Park, along with the unreliable ford in Lubber Run Park, in a way that is effective and sustainable in an era of changing climates and worsening storms.
- *Other?*

### **Playgrounds and Other Recreational Facilities**

In addition to trails, the parks near Arlington Forest have multiple playgrounds and other facilities for recreational use (map XXXX). The playground in Glencarlyn Park across from Southside was recently renovated through Arlington's Neighborhood Conservation Program. Through the same program, the county is renovating the Edison Park playground, a half-acre site on North Edison Street in Greenbrier adjacent to Lubber Run Park. Bluemont Park has a large wooded playground, and the Lubber Run Community Center has a new playground. Arlington Forest residents also use the playground facilities at Barrett Elementary School, across North Park Drive from the Lubber Run Community Center.

Next to its playground, Bluemont Park has a well-marked wooded frisbee course that is popular and well maintained. The park also has grass fields for sports, along with baseball diamonds and tennis courts. Across the W&OD Trail in Bluemont Junction Park, a soccer field is available for use by teams and leagues in the area.

Lubber Run Park has a pavilion with picnic tables and a separate picnic area with a fire ring, along with another picnic area downstream. Glencarlyn Park has two pavilions with parking lots and picnic facilities, including one that the county renovated in 2019, in part to make it more accessible for people with disabilities. Bluemont Park has a parking lot and a pavilion with picnic facilities near its wooded playground. Most recreational facilities in our neighborhood parks are accessible to people with disabilities.

Glencarlyn Park has a designated area for dogs (the Glencarlyn Dog Park) just south of the confluence of Long Branch with Four Mile Run. The dog park boundaries are well marked by signs that explain the rules for its use, and it gets plenty of traffic. In our neighborhood survey, almost a third of the respondents indicated having used the Glencarlyn Dog Park often (13 percent) or occasionally (18 percent), and a significant minority (20 percent) would like to see another dog park in Arlington Forest or nearby.

The Glencarlyn Dog Park was partially washed out by the July 8 flood; streams naturally change course on their floodplains, and Long Branch appears to be changing course through the dog park, although the dogs don't mind and the park remains well used. The residents of Arlington Forest commend the county for meeting a community need by establishing and maintaining an effective and popular dog park.

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### **Recommendation**

- ?

### **Lubber Run Amphitheater**

The Lubber Run Amphitheater occupies about an acre of Lubber Run Park at the intersection of 2nd Street North and North Columbus Street in Northside. The outdoor facility is used by Arlington Cultural Affairs to stage free open-air productions in summer. The amphitheater has a parking lot and bench seating for about 300, with additional space for lawn chairs and blankets.

Inaugurated in 1969, the facility was initially opposed by AFCA for fear of increased traffic and noise, but the performances became popular with residents. In 2009, the county closed the amphitheater to performances because the stage was no longer deemed safe and other repairs were also urgently needed. The county considered permanently closing the amphitheater because of the expense of bringing the facility into compliance with the Americans With Disabilities Act and other requirements. However, Arlington Forest and other neighborhoods rallied support on behalf of the amphitheater, saving it through a successful partnership with the county.

The amphitheater celebrated its 50th anniversary in 2019, and Arlington Forest is proud to host its free outdoor entertainment, enjoyed by large majorities in our neighborhood: 92 percent of our survey respondents reported using the amphitheater at least occasionally. The popular performances are conducted in a manner that minimizes inconvenience to the neighborhood (through early closing times and a sensible volume of music). We congratulate the county for sponsoring consistently good entertainment in a way that is sensitive to community needs.

The amphitheater is a key part of what residents like about living in Arlington Forest, and a community goal is to preserve the Lubber Run Amphitheater as an arts venue, working with the county to keep lively entertainment going throughout each summer. The facility needs upgrades to replace retaining walls, and the county has an obligation to perform the maintenance needed to keep the amphitheater in good condition. As part of the work, the county has an opportunity to install stormwater retrofits onsite, as proposed in its 2013 Stormwater Retrofit Study.

### **Recommendations**

- The community strongly supports the ongoing use of the Lubber Run Amphitheater for summer entertainment programs.
- The county should complete upgrades to the facility by replacing retaining walls and anything else needed to keep the amphitheater in good condition.
- The county should work with AFCA to explore the feasibility of stormwater retrofit projects for the site, including those proposed in the 2013 Stormwater Retrofit Study.
- *Other?*

### **Long Branch Nature Center**

The Long Branch Nature Center in Glencarlyn Park, with a parking lot and an access road from South Carlin Springs Road, opened in 1972. The center has a small one-story building featuring



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live animal displays, a children's Discovery Room, a meeting room for up to 40 people, and exhibits of local wildlife and geology. Outside its doors, the center maintains interpretive gardens, a year-round viewing pond, a small outdoor amphitheater, and space for birthday parties and nature-based programs.

County staff uses the facilities for hosting programs and special events, including story times, campfires, nature walks, and invasive plant removals. The staff also maintains ponds and other habitat for native wildlife in the parks. Local clubs and programs use the Long Branch Nature Center for meetings, presentations, and classroom space, including space for the Arlington Regional Master Naturalist program. The Arlington County stream monitoring program stores equipment there. Geology, birdwatching, and other nature walks often start at the center because of its excellent access to the parks.

The residents of Arlington Forest commend the county for maintaining the Long Branch Nature Center and its programs for people of all ages. Three-quarters of the respondents to our neighborhood survey (75 percent) reported using the center at least occasionally. We hope that the center will continue its educational and recreational offerings as well as its support for parkland stewardship activities on behalf of the surrounding communities.

### ***Recommendation***

- ?

### **Neighborhood Identification Signs**

Neighborhood identification signs are a source of community pride, telling people what neighborhood they are passing by or through. Arlington Forest has four attractive neighborhood signs, the maximum number that the county will pay to install in a neighborhood. AFCA is responsible for trimming vegetation around the signs and for repainting signposts or supports if needed.

Designed by Northside's Larry Bowring, the signs were installed in 1992–93 through a project proposed in the 1991 Arlington Forest Neighborhood Conservation Plan and funded by the county's Neighborhood Conservation Program. The signs are located in Greenbrier on North Carlin Springs Road just north of Arlington Boulevard; in Southside at the intersection of Arlington Boulevard and South Park Drive; and in Northside at both ends of North Park Drive.

### ***Recommendation***

- ?

### **Utility Lines Undergrounding**

The developer of Arlington Forest was the first in the county to improve the appearance of the community by installing powerlines behind houses rather than on streets. However, the placement of powerlines behind homes has made access more difficult for maintenance and repair. The problems are worst on streets adjacent to parkland, where fallen trees on steep slopes have caused lengthy power outages and delayed repairs. Existing powerlines along some streets in the neighborhood detract from the beauty of the trees.

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The county has an opportunity to place all overhead utility lines in Arlington Forest underground. If funding limitations prevent powerline undergrounding for the entire community, then the county might do so for the areas most at risk from lengthy blackouts—the powerlines in our neighborhood parks.

On streets where utility lines are located in front of homes, the yearly pruning of trees to keep branches away from the wires is aesthetically displeasing. There are attractive areas in the metropolitan region, including in Arlington, where street trees are pruned around wires and allowed to grow in a normal and pleasing manner. These kinds of pruning skills need to be applied throughout the county.

### ***Recommendations***

- The county should move powerlines on steep hillsides in Arlington Forest to adjacent streets and replace them with underground wiring.
- Where powerlines are along streets in Arlington Forest, the county should place them underground.
- *Other?*

### **Public Safety (Police, Fire, and Ambulance)**

Police reports and online community networks suggest that instances of crime and numbers of arrests and traffic tickets are low in Arlington Forest. Thefts (such as automobile break-ins) and vandalism are sometimes reported, but Arlington Forest is a relatively safe neighborhood. In our neighborhood survey, 91 percent of the respondents did not regard crime as a problem on their own streets, and 77 percent did not see crime as a problem anywhere in Arlington Forest.

However, the perception of crime in neighborhood parks is high, with 69 percent of the survey respondents viewing crime and 67 percent vandalism as a threat to user enjoyment. The Arlington Forest Neighborhood Conservation Plan from 1991 noted “generic problems facing urban parks” such as “excessive noise, vandalism, and the proliferation of graffiti.” Memories of past problems and ingrained beliefs about urban parks might influence perceptions today.

Satisfaction with law enforcement activity in Arlington Forest is high. In the 2018 countywide survey, 85 percent of the respondents indicated overall satisfaction with the quality of police services in Arlington. In our neighborhood survey, 71 percent expressed satisfaction with the police; dissatisfaction was negligible (1 percent).

Satisfaction with fire and ambulance services is equally high. A fire station on Wilson Boulevard is only minutes away from our neighborhood, and ambulances at the Virginia Hospital Center on North George Mason Drive are close enough for a rapid and effective emergency response. In our neighborhood survey, 70 percent of the respondents expressed satisfaction with fire and ambulance services, with no dissatisfaction reported.

Arlington Forest thanks and commends our police and other first responders in Arlington County for serving our community so well, especially during a pandemic.

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## **Recommendation**

- ?

### **Other County Services**

The residents of Arlington Forest appreciate the trash, water, and sewer services we get from the county for their quality and reliability. We also appreciate the county's system for picking up and removing bulk items for homeowners. Most residents of Arlington Forest participate in the county's programs for recycling and for yard waste and autumn leaf removal, and some take advantage of the county's inexpensive mulch delivery service. In our neighborhood survey, large majorities were satisfied with the county's water and sewer services (73 percent), trash pickup (87 percent), and curbside recycling (77 percent).

However, large majorities (69–81 percent) reported improper disposal of garbage as a threat to the health, beauty, and enjoyment of our neighborhood parks, and trash is often evident in and along our neighborhood creeks. The source appears to be street litter rather than illegal dumping or problems with trash pickup. Arlington Forest encourages the county to increase rates of street sweeping as funding permits, and we endorse programs such as Adopt-a-Street, which encourages Arlington residents to remove street litter as a civic service. In response to the litter in our neighborhood streams, AFCA pledges to continue our periodic stream cleanups.

## **Recommendation**

- ?

### **Social Services**

Arlington County offers an array of social services for the disabled, the elderly, and those of limited financial means. Arlington Forest salutes the county for the extent and variety of its social services. Some residents of our community or their relatives take advantage of services related to childcare, elder care, or those with disabilities, including food and transportation services. In particular, we appreciate the county's support for residents who want to age in place.

Arlington Forest commends the county for its commitment to serving residents of all ages, abilities, and financial means. We urge the county to continue and expand its social services to meet the needs of all county residents.

## **Recommendation**

- ?

### **COMMERCIAL/BUSINESS AREAS**

*Being drafted.*

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*Placeholder text:*

*[The Arlington Forest Shopping Center is modeled after the Spring Valley/Wesley Heights Shopping Center, built in Bethesda, Md. around 1935. Designed by locally prominent architect Robert O. Scholz, the one-story building originally had an estimated value of \$60,000. It was built to provide a mixture of convenience goods and services to the adjacent Arlington Forest subdivision. The shopping center consists of three different sections built in 1941, 1946 and 1947. The original section was anchored by an A & P Supermarket and a People's Drug Store and the first business to open was the Forest Delicatessen, operated by Jack and Pauline Cohen. Other early businesses included a hardware and appliance store, a dry cleaners, a shoe repair shop and a beauty salon.]*

## Types

*Being drafted.*

## Conditions

*Being drafted.*

## Relationship With Residential Areas

*Being drafted.*

*Placeholder text:*

### ***[Private Neighborhood Services]***

*[Culpepper Garden, located on North Henderson Road in Arlington Forest, is operated by a private nonprofit housing corporation that offers affordable housing to low-income seniors 62 years of age and older. The 5-acre site is named for Dr. Charles Culpepper, a USDA botanist who sold it to a church-affiliated entity to build housing for low-income seniors. An eight-story, 210-unit apartment building opened its doors in 1975; it was added to in 1991 with help from the U.S. Department of Housing and Urban Development, and it began offering assisted living services in 2000. Renovation of the original facility began in 2018, including replacing the roof and refurbishing the apartments. Culpepper Garden now features 340 apartments for low-income seniors, including 73 apartments for assisted living.*

*Arlington Forest appreciates the services offered by Culpepper Garden, and we fully support its mission and residents.]*

## ***Recommendations***

- ?

## HISTORICAL PRESERVATION

Arlington Forest was added to the National Registry of Historic Places in 2005. The 207-page nomination document, posted on the AFCA website, cited Arlington Forest as one of Arlington County's best examples of a planned mixed-use community from the mid-20th century. The neighborhood typifies the innovative trends of suburban planning from the World War II era,

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1 incorporating curvilinear streets, culdesacs, community parklands, and a neighborhood shopping  
2 center into its original design.

3 Placement on the National Registry of Historic Places does not protect structures in the Arlington  
4 Forest Historic District from being modified or even destroyed. The first complete teardown of  
5 an original Arlington Forest house took place in 2015 at 234 North Galveston Street in  
6 Greenbrier. Since then, perhaps a dozen original houses have been gutted, with no more than a  
7 few exterior walls left untouched, so that the interior could be completely replaced.

### **Pre-Civil War Homes**

9 Designation of Arlington Forest as a Historic District was based on buildings constructed from  
10 1939 to 1948. However, the district also includes three structures built before the Civil War, all  
11 in Greenbrier (map XX).

12 The oldest house in Arlington Forest (and the second oldest in Arlington) is the Mary Carlin  
13 House at 5512 North Carlin Springs Road. It was constructed in about 1800 by William Carlin,  
14 George Washington's tailor. The one-story log home was originally part of Carlin's 165-acre  
15 tract purchased in 1772. Carlin later gave the property to his granddaughters, Mary and Ann  
16 Carlin. Mary Carlin lived there until her death in 1905.

17 Nearby is the one-story Ann Carlin Cottage at 117 North Galveston Street, which dates to about  
18 1850 and is believed to have been built as a tenant house or servants' quarters for the Mary  
19 Carlin House. Not far away is the two-story frame farmhouse at 205 North Galveston Street,  
20 which likely dates from the 1820s–40s. During the Civil War, the property was owned by  
21 Charles E. Mix, who served as Commissioner of the Bureau of Indian Affairs in 1858. Records  
22 show that he owned nine slaves.

### **Historical and Other Markers**

24 Since the 1960s, Arlington County has erected markers at historic sites. The markers are  
25 rectangular black-and-white metal signs with a distinctive scroll-like shape on top. The three  
26 signs in or near Arlington Forest are for:

- 27 • the location of the last dairy farm in our area, known as Reevesland (in Bluemont Park on the  
28 W&OD Trail north of the parking lot for the pavilion and wooded playground);
- 29 • the original location of the Carlin Springs (now dry) and the associated 19th-century  
30 amusement park (in Glencarlyn Park near the junction of the W&OD Trail and the asphalt  
31 spur trail that leads up to 2nd Street South); and
- 32 • the Mary Carlin House, an original log farmhouse built in about 1800 by William Carlin  
33 (George Washington's tailor), who left the property to his granddaughters, Mary and Ann  
34 Carlin (in Greenbrier at 5512 North Carlin Springs Road, on the corner of 1st Place North).

36 Since the 1990s, NOVA Parks has posted markers for historical features and notable wildlife  
37 along the W&OD Trail. The markers are plastic signs on wooden pedestals at waist level. On  
38 most, the plastic is so badly scratched that the signs are barely legible. The markers are for:

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- 1 • Bluemont Junction Station, where a rail line to Rosslyn joined the W&OD Railroad (in  
2 Bluemont Junction Park just south of Wilson Boulevard);
- 3 • Glencarlyn Station on the W&OD Railroad (in Glencarlyn Park just north of the Arlington  
4 Boulevard overpass);
- 5 • wild turkey (in Glencarlyn Park just north of the Arlington Boulevard overpass—ironically,  
6 our neighborhood parks now have no wild turkey);
- 7 • dragonflies (in Glencarlyn Park adjacent to Sparrow Pond); and
- 8 • groundhog (in Bluemont Park along the W&OD Trail, across Four Mile Run from the  
9 pavilion).

10  
11 In addition, signage explains the nature and purpose of Sparrow Pond in Glencarlyn Park along  
12 the W&OD Trail. In Bluemont Park along Four Mile Run, you can also find trailside signs about  
13 an art project from the 1980s inscribing evocative names (such as “Old Sentinel” and “Sleeping  
14 Moon”) into eight scattered bedrock boulders.

15 Arlington Forest is proud of its historical and natural heritage and wants to share information  
16 about it. The neighborhood conservation plan from 1991 noted vandalism (such as spray paint)  
17 on recreational facilities and on the bedrock along Four Mile Run. Neighborhood pride in our  
18 natural, recreational, and historical resources, displayed by educational signs, can reduce the risk  
19 of such vandalism. Our neighborhood survey showed strong support for installing historical  
20 markers at the following sites, some suggested by survey respondents:

- 21 • The confluence of Long Branch and Four Mile Run, where George Washington used a large  
22 oak tree in 1785 to survey the boundary line of land he owned to the south. Archeologists  
23 have also found evidence of an American Indian village near the site.
- 24 • A unique old-growth forest stand located in Glencarlyn Park. Part of a county-designated  
25 natural resource conservation area, the stand is one of only two recognized old-growth tracts  
26 remaining in Arlington.
- 27 • Arlington Forest Park, designated by the county as a natural resource conservation area for  
28 its rare oak savanna ecosystem, the largest remaining tract of its kind in Arlington. (The  
29 county already plans to install an interpretive sign for the site.)
- 30 • Huffman’s Falls on Four Mile Run, a point of both geological and historical interest. The  
31 area’s bedrock is well exposed at the waterfall, as is the pre-Civil War stonework for the  
32 W&OD Railroad.
- 33 • The one-story Ann Carlin Cottage at 117 North Galveston Street in Greenbrier. The home  
34 was built around 1850 as a tenant house or servants’ quarters for the Carlin family farm.
- 35 • The two-story frame farmhouse at 205 North Galveston Street in Greenbrier, built in the  
36 1820s–40s and once owned by Charles E. Mix, who served as Chief Clerk of the Bureau of  
37 Indian Affairs from 1838 to 1868 (and briefly as Commissioner in 1858).
- 38 • The Lubber Run Amphitheater, Arlington’s only open-air performing arts venue and a  
39 beloved landmark for the community. Constructed in 1969, the amphitheater celebrated its  
40 50th-year anniversary in 2019.



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- The site of the historic Henderson House at the Lubber Run Community Center. Constructed in 1894, the fashionable country home became Arlington County's first community recreation center in 1951.
- The Arlington Forest Historic District, placed on the National Register of Historic Places in 2005 for its unique history and architecture. A marker might be installed at the centrally located Arlington Forest Shopping Center, which contributed to the designation.
- The first Arlington Forest homes, constructed in 1939 in Southside. A marker describing the Colonial Revival architectural style might be placed at the entrance to Southside on South Park Drive, where some of the first homes are located.

Where markers are prone to flood damage along creeks, they might be in the form of metal plaques affixed to boulders or bedrock.

### ***Recommendations***

- The county should install permanent historical markers at all listed sites.
- The county should work with NOVA Parks to repair or replace its damaged signs.

## **URBAN FORESTRY**

Urban forestry aligns with the concept of a biophilic city, an urban environment that invites you to get outdoors and connect to nature, whether in your own backyard or in your neighborhood parks. The residents of Arlington Forest commend Arlington County for joining Washington, DC, and more than a dozen other cities in the United States and around the world in the Biophilic Cities Project. The project, launched at the University of Virginia, will allow the county to collaborate with researchers and managers in other urban environments. Together, the partners can evaluate biophilic conditions in Arlington, exchanging information and sharing knowledge and experience. By joining the project, the county will benefit from best practices in biophilic urban design and planning across the country.

Arlington County is poised to contribute through its careful urban planning. The county's Public Spaces Master Plan, approved in April 2019, calls for updating the Urban Forest Master Plan and the Natural Resources Management Plan and integrating them into a single comprehensive plan. The combined plan will continue to offer guidance in managing the wooded landscapes of Arlington County to preserve and promote their biophilic features.

Such landscapes in and around Arlington Forest comprise the three relatively well-wooded portions of our neighborhood (Greenbrier, Northside, and Southside) as well as the adjacent county parklands. The residents of Arlington Forest want to work with the county to maintain and expand the tree canopy in our neighborhood and to protect and preserve our natural ecosystems on public lands through careful urban forest management.

## **The Nature Parks**

In 2008, Arlington County commissioned a Natural Heritage Resources Inventory. Based on the inventory, the county adopted a Natural Resources Management Plan in 2010 (currently being updated and combined with the Urban Forest Master Plan). The plan focuses on protecting intact

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resources in Arlington’s remaining natural areas. Of Arlington’s total land area (15,576 acres), general open space comprises 18.9 percent (2,940 acres), with natural lands making up 4.7 percent (738 acres) and county-owned natural lands 1.6 percent (248 acres). Accordingly, the protected natural areas in Arlington County are a rare and precious resource.

Arlington’s natural areas include the nature parks in or near Arlington Forest. Most Arlington parks are dominated by softball fields, tennis courts, or open grassy areas, but Lubber Run and Glencarlyn Parks are primarily nature parks, as is the southwestern section of Bluemont Park, along with Mary Carlin Woods. These parklands contain some of the largest remnants of natural landscapes remaining in Arlington County, including a forest stand that has never been logged.

### **Landscape Features**

Our local nature parks feature a range of topographies, from streamside bottomlands to “terrace” uplands where the homes are built. Although forest predominates almost everywhere, the varied topographies, soils, and moisture levels create conditions for a variety of plant and animal communities, including the potential for rich biodiversity.

#### **Bottomlands**

Four Mile Run, Long Branch, Lubber Run, and Arlington Forest Branch all have small floodplains with relatively flat terrain and soils for native plants that prefer or tolerate wet conditions and disturbance by floods. The trees include pin oak, catalpa, American sycamore, black cherry, black locust, black willow, green ash, red maple, silver maple, American elm, American basswood, tupelo, river birch, and (rarely) eastern cottonwood, with an understory that includes boxelder, sassafras, American hornbeam, viburnums, and witch hazel.

The floodplains feature wetlands in winter and spring. For example, small seasonal swamps dot the northern bank of Four Mile Run upstream from the Arlington Boulevard overpass. Ephemeral springs and seeps feed the seasonal wetlands, which tend to dry out by summer. They are vital breeding grounds for amphibians such as frogs and salamanders.

The W&OD Trail skirts one such wetland, a small pond and marsh across Four Mile Run from the pavilion in Bluemont Park. In recent years, the wetland has rarely dried out, fed perhaps by permanent seeps and by floods when summer storms push Four Mile Run over its banks. The pond and marsh have come to support a variety of birds, reptiles, amphibians, mammals, and insects during much of the year. If you’re lucky, you might spot a heron waiting in ambush for small fish, frogs, and other prey.

In Glencarlyn Park, the county maintains a series of connected ponds for stormwater control and water filtration below the foot of South Abingdon Street adjacent to the W&OD Trail. In 1996, fearing that high water might wash out the W&OD Trail, park managers removed a beaver dam from Arlington Forest Branch, the brook that divides Southside from neighboring Barcroft. The brook joins Four Mile Run just upstream from Huffman’s Falls by way of a culvert built more than a century ago under the W&OD Railroad.

In 2002, partly in response to neighborhood concerns about beaver removal, the county worked with NOVA Parks to install a series of artificial ponds on Arlington Forest Branch to collect

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1 stormwater runoff from neighborhood streets and remove litter, sediments, and nutrients from the  
2 brook. Known as Sparrow Pond, the site is now a year-round marsh featuring wetland vegetation  
3 and a viewing deck for visitors.

4 In 2019, beavers returned to the site, building a dam on top of the weir for the artificial ponds  
5 and raising water levels high enough to join the ponds together. Seepage from the beaver pond  
6 under the W&OD Trail has created a band of marsh on the other side of the old railroad berm. A  
7 brooklet drains the marshy area, trickling into Four Mile Run downstream from its confluence  
8 with Arlington Forest Branch.

9 Arlington County manages Sparrow Pond as a wildlife sanctuary for reptiles, amphibians, and  
10 other wetland creatures. If you arrive at dawn or dusk, you might see a beaver swimming through  
11 the pickerelweed and spatterdock. Near the Long Branch Nature Center, the county also  
12 maintains a small seasonal pond for amphibians next to the access road and a year-round viewing  
13 pond outside the nature center doors on Long Branch, where ducks, hawks, herons, and other  
14 birds find seasonal feeding habitats. Arlington Forest commends the county for sustaining rare  
15 local wetland ecosystems with habitats for a variety of plants and animals.

### **Forest Types**

17 Our neighborhood streams have carved valleys into the terraces where the homes are built, so  
18 most of our local parkland comprises wooded valley slopes with multiple ecological niches.  
19 Arlington's Natural Resources Management Plan has identified several forest types in the parks,  
20 including acidic oak–hickory forest and oak–heath forest on the upper slopes and mesic mixed-  
21 hardwood forest on the lower slopes, along with a rare remnant of basic mesic forest in  
22 Glencarlyn Park.

23 The soils on the upper park hillsides are thin and rocky. Oaks abound, including white oak, black  
24 oak, scarlet oak, and chestnut oak. Pignut hickory and mockernut hickory are mixed in, along  
25 with tuliptree; tuliptrees are often the largest and tallest canopy trees in our area. Understory  
26 trees and shrubs include sassafras, redbud, dogwood, American holly, rhododendron, blueberries,  
27 wild azalea (pinxter), and mountain laurel.

28 The lower slopes tend to be cooler and shadier, with deeper soils that retain more moisture. In  
29 the mixed-hardwood forest type, scarlet oak gives way to northern red oak and bitternut hickory  
30 joins the hickories. Other hardwoods include white oak, tuliptree, tupelo, black cherry, black  
31 locust, black walnut, American elm, catalpa, white ash, and American basswood; on the shadiest  
32 sites, American beech and red maple reach from the understory into the canopy. American  
33 chestnut was present before the invasive chestnut blight wiped it out in the early 20th century,  
34 but if you look carefully, you might find chestnut shoots from old rootstocks. (Glencarlyn Park  
35 has a chestnut more than 10 feet tall.) The understory includes witch hazel, common hazel,  
36 dogwood, redbud, sassafras, American holly, viburnums, serviceberry, American hornbeam, and  
37 (rarely) white fringetree.

38 The largest trees in the parks are over 170 years old, almost three times the age of our  
39 neighborhood. A tree felled along Lubber Run in the early 1980s was 3 feet in diameter; its 165  
40 growth rings indicated that it began life around 1818, just 4 years after British troops burned the  
41 White House and Capitol across the Potomac River. The steep terrain and poor soils discouraged

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farming and homebuilding on the hillslopes, allowing native forests to grow—or to regrow where trees were felled for the W&OD Railroad or by Union troops to protect the railroad from Confederate raids during the Civil War.

In 2015, the Maryland-based Old-Growth Forest Network designated a stand of trees in Glencarlyn Park as old growth (never been logged). The stand straddles the asphalt spur trail that leads from the W&OD Trail up to 2nd Street South in Glencarlyn and extends eastward along the Glencarlyn slopes towards the Long Branch Nature Center. The Glencarlyn stand is one of only two recognized old-growth forests in all of Arlington (the other is at Arlington Cemetery); it contains about 100 notable trees, some more than 2 centuries old. The county has an opportunity to protect a rare Virginia old-growth stand and to post an educational sign about it.

The part of the old-growth stand facing southeast is acidic oak–hickory forest. It contains mixed oaks and hickories, with little or no chestnut oak and a heavy component of tuliptree and scarlet oak. By contrast, the stand just across the spur trail facing northwest has a heavy component of chestnut oak, along with rhododendron, mountain laurel, wild azalea, and blueberries in the understory. It is a forest type known as oak–heath (“heath” for mountain laurel, which belongs to the heather family).

The oak–heath community prefers dry northwest-facing slopes in our parks, such as the slope on the southeastern side of lower Long Branch in Glencarlyn Park. In Lubber Run Park, the oak–heath community dominates the slopes below Northside but is absent on the Greenbrier side of the creek. You can tell by the prevalence of mountain laurel east of Lubber Run and its absence west of the creek.

### **Natural Resource Conservation Areas**

Unusual natural features deserve special protection, and Arlington’s Natural Resources Management Plan recommended that some areas containing them be designated as natural resource conservation areas. The county designated 10 such areas covering a total of 126 acres countywide, including 3 areas covering more than 50 acres in our neighborhood parks. The residents of Arlington Forest commend the county for giving these special places the recognition and protection they deserve. We are proud of our local natural resource conservation areas.

Large blocks of Glencarlyn Park southwest of Four Mile Run, including the old-growth stand, are designated as natural resource conservation areas. A little-visited 3-acre tract just north of Arlington Boulevard is a prime example of an undisturbed acidic oak–hickory forest. South of Arlington Boulevard lies a 50-acre tract with multiple forest types on the slopes below



*Notable tree (a northern red oak) in the old-growth stand in Glencarlyn Park. Photo: Hutch Brown (2019).*

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Glencarlyn. Largely free from invasive species, these woodlands contain such special features as county champion trees, locally rare native plants, and geological attributes of scientific importance (such as the bedrock exposures at Huffman’s Falls). Neighbors can enjoy a walk through the area on an unpaved trail leading uphill through old-growth forest from the Carlin Springs historical marker towards the Long Branch Nature Center.

Another natural resource conservation area is little-known Arlington Forest Park, a 1-acre tract between the Arlington Forest Shopping Center and Arlington Boulevard. The park contains Arlington’s largest remnant of a plant community called dry gravel cap–xeric oak/poverty oatgrass glade. The native soils, derived from ancient river sediments, are thin and sandy. The site features native plants adapted to xeric (dry) habitats, including a grassland species known as poverty oatgrass, a grass that gets about a foot tall. It’s the only place—or one of the only places—in Arlington where you can find rare plants like pineweed, coralberry, globe flatsedge, St. Andrew’s cross, and forktip three-awn grass. Dry-site trees like white oak and chestnut oak are scattered across the park, which also contains locally rare young bigtooth aspens. Young trees of other kinds have seeded in, including Virginia pine, eastern redcedar, tuliptree, tupelo, and Bradford pear (an invasive species).

In the thin soils, the large oaks are vulnerable to prolonged drought, and multiple trees have weakened and died under the unusually dry conditions that followed torrential rains on July 8, 2019. The dead trees are a safety hazard for park visitors, and their prominent location makes them a community eyesore. The county plans to hasten natural processes of deadfall and decay by leaving the trunks standing as habitat for insects, woodpeckers, and other wildlife while scattering the upper portions around each trunk to gradually decay. Oak seedlings are coming up in the park, and managers will encourage their growth, fencing them off from deer if necessary.

Plants in Arlington Forest Park like poverty oatgrass are adapted to periodic burning, which destroys vegetation that would otherwise shade them out, such as Virginia pine and eastern redcedar (trees that readily colonize such open spaces). A tall native grass called broomsedge bluestem is also crowding out the oatgrass and other rare species. Unfortunately, controlled fires are infeasible in this tiny urban park, but park managers are planning alternatives, such as weeding out pines and junipers. To better “frame” the space, both to make it visually more appealing and to keep vegetation from spilling over trails and sidewalks, the county will begin mowing around the park perimeter each summer. Park staff will hand trim areas around desirable plants, and the rest of the park will be mowed once a year after the oatgrass has flowered and released its seeds to discourage the broomsedge. The county is committed to protecting a rare remnant ecosystem in Arlington Forest Park, and it plans to post an educational sign about it.

### **Fire Ecology**

Although our neighborhood parks contain a variety of plant communities, they probably do not much resemble the original landscapes in our area because a key factor is missing: wildland fire. Four hundred years ago, surface fires burned through our area at intervals of 30 years or less, opening the landscape and creating patches of grassland with scattered trees. Many of our upland forests probably resembled Arlington Forest Park, with its open fire-adapted vegetation.

Virginia gets few lightning fires. What kept our ancestral landscapes open was seasonal burning by American Indians for agriculture, hunting, travel, and trade. “They cannot travel but where

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the woods are burnt,” noted John Smith, a cofounder of Jamestown in 1607. The area near Arlington Forest originally contained an American Indian village (at the confluence of Long Branch with Four Mile Run). The residents would have used fire to clear bottomland for farming after killing the trees by girdling them (cutting away a ring of life-giving bark). Upland forested areas, maintained by seasonal burning, probably had widely spaced large old trees of oak and hickory, with an understory of fire-adapted grasses and other plants. Browse and forage for deer, elk, and other game would have been plentiful in the open shade, and visibility would have been good, with big trees to hide behind while stalking game.

Without wildland fire, most natural landscapes in our area have become dense and self-sustaining forest, free from disturbances except for occasional windthrow and bottomland flooding during storms. Especially within the same species, old trees nurture their offspring—and each other—through complex interactions in their roots and in forest soils. The oldest and tallest trees eventually die from rot or topple in storms, creating openings for the next generation of trees. In July 2020, for example, a large white oak with rot in its heartwood fell across Lubber Run just below 3rd Street North. Fatally weakened, it might have toppled in a light breeze.

Subsoil interactions among trees through their roots involve fungi in sharing resources. Trees draw water and nutrients through their roots to help them convert sunlight into energy through their leaves. Insects and other animals eat the leaves, cycling the sun’s energy to the animals that in turn eat them, from spiders to foxes and hawks. Our local forests support habitats for a rich variety of native wildlife, all deriving sustenance from the constant cycle of energy through soils, plants, and animals. Arlington Forest wants to ensure that such natural processes continue through careful forest stewardship, along with protection for rare bottomland and upland ecosystems like Sparrow Pond and Arlington Forest Park.

### **Threats to Our Urban Forest**

The residents of Arlington Forest are keenly aware of environmental issues. In our neighborhood survey, majorities expressed concern about a range of threats to the health, beauty, and enjoyment of our parks and natural areas. Concerns about environmental health, for example, ranged from drought (58 percent) to water pollution (85 percent); concerns about user enjoyment included erosion (68 percent) and flood-related damage in our parks (76 percent).

Seventy-nine percent of the respondents expressed concern about air pollution, high levels of which obscure even clear nighttime skies in our area and can make outdoor activity unhealthy on summer days. Seventy-five percent worried about tree loss at a time when conversion of forest to developed uses affects many parts of the nation, including much of northern Virginia. Seventy-four percent were also concerned about loss of biodiversity, a problem nationwide.

Many environmental concerns across the nation are tied to broader developments associated with changing climates and weather patterns, including drought, storms, floods, forest mortality, and catastrophic wildfire. In recent decades, for example, worsening wildfires linked to climate change have taken lives and destroyed many homes in the western United States. The areas most at risk are in the so-called wildland/urban interface, where bedroom communities adjoin large areas of wildland vegetation. Arlington Forest fits the bill, and 62 percent of the respondents in our neighborhood survey reported forest fire as a threat. The risk from wildfire in our area is



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1 actually quite low, but climate change is fraught with uncertainty and drought could elevate the  
2 risk.

### **3 Protecting Our Natural Resources**

4 The main climate-related risks in our area have to do with changing weather patterns, especially  
5 severe storms. In our neighborhood survey, 76 percent of the respondents said that changing  
6 climate and unusual weather patterns were a threat to the health of our urban forest, as were  
7 flood-related damage (56 percent), erosion (62 percent), and water pollution (85 percent).  
8 Invasive species pose another threat to the ecological integrity of our nature parks. An emerging  
9 threat to biodiversity comes from the growing deer population in our neighborhood parks.

### **10 Stormwater Runoff**

11 “[W]hen soil washes away faster than it forms, and when water systems  
12 exhibit abnormal floods and shortages, the land is sick.”  
13 –Aldo Leopold, *A Sand County Almanac* (1949)

14 The Clean Water Act of 1977 requires state agencies to work with the Environmental Protection  
15 Agency (EPA) to clean up polluted streams and water bodies such as Chesapeake Bay. In 2010,  
16 EPA set a total maximum daily load (TMDL) for Chesapeake Bay, an upper limit on pollutants  
17 allowed to reach the bay from throughout its multistate watershed (from Virginia to New York).  
18 The pollutants of most concern are nitrogen, phosphorus, and sediments.

19 Under the law, state governments are taking steps to meet the Chesapeake Bay TMDL. As the  
20 holder of a state permit for a municipal storm sewer system, Arlington County adopted a  
21 Chesapeake Bay TMDL Action Plan for meeting TMDL requirements. Stormwater runoff  
22 accounts for most of Arlington’s contribution of nitrogen, phosphorus, and sediments to  
23 Chesapeake Bay. The county’s strategy for meeting the TMDL requirements includes stream  
24 restoration projects to reduce stormwater runoff and sedimentation, watershed retrofits (such as  
25 bioretention ponds) to slow and filter stormwater runoff, and more.

### **26 Stream Degradation**

27 Part of what residents enjoy about our neighborhood parks are the streams, with their clear  
28 waters tumbling over rocks into peaceful pools. You can sometimes see small fish hovering in  
29 the currents, and you can often find the tracks of raccoon, white-tailed deer, and other native  
30 wildlife on the streambanks. The first European settlers in our area found streams that were  
31 cooler and deeper, with higher ground water levels and greater steady flows than today. They  
32 sustained native brook trout, now limited to Appalachian streams.

33 Until the 1940s, Arlington was mostly farmland, with about 70 miles of natural streams.  
34 Flooding was not a major concern. As housing tracts like Arlington Forest mushroomed across  
35 the county from the 1930s to the 1950s, most of Arlington’s smaller streams and the headwaters  
36 of larger ones were buried in pipes underground. No laws protected watersheds, and little  
37 thought was given to what stormwater specialists today call overland relief—floodplains and  
38 retention areas for stormwater runoff to relieve pressure on storm sewers overtaxed by torrential  
39 rains.

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1 Today, only about 32 miles of stream remain in Arlington. Development has covered the ground  
2 with impervious surfaces—roads, parking lots, driveways, rooftops, sidewalks, and the like,  
3 which keep precipitation from filtering into the soil. About 43 percent of the land area in  
4 Arlington is now covered by impervious surfaces, an area that continues to grow, especially as  
5 homeowners expand the footprint of their homes. Zoning for single-family detached units  
6 accounts for about 44 percent of the county’s land area, and single-family home expansions  
7 comprised almost 60 percent of the increases in impervious surfaces from 2010 to 2013.

8 During heavy downpours, the soils in Arlington are saturated within minutes. Landscaping and  
9 sump pumps then channel the runoff onto streets and into storm sewers. The antiquated  
10 stormwater facilities from the 1930s–50s cannot handle the volume, and the runoff sometimes  
11 pours overland, flooding streets and inundating basements and parked cars. The waters finally  
12 reach our truncated streams, resulting in year-round flooding with every heavy rainfall.

13 The results are obvious in our neighborhood parks. The streams have scoured away their gravel  
14 beds, exposing the bedrock. In their deepened channels, the creeks no longer connect to their  
15 floodplains, amplifying the erosive force of their floodwaters. On outer bends, the scouring  
16 floods have left eroded escarpments many feet high; erosion scars are evident along all three  
17 major neighborhood streams (Long Branch, Lubber Run, and Four Mile Run). During especially  
18 heavy downpours, our neighborhood streams can become raging brown torrents that fill their  
19 entire floodplains, scouring away soils, washing out trails and bridges, and posing drowning  
20 hazards to anyone nearby. Dammed up behind a culvert too small to take the volume of the  
21 floodwaters, Lubber Run can form a turbulent lake, leaving lower Lubber Run Park buried in  
22 mud when the waters finally recede.



*Erosion scar on Four Mile Run in Glencarlyn Park. On an outer bend of the creek, floodwaters have scoured down to the bedrock, leaving an escarpment and a toppled tree. Photo: Hutch Brown (2018).*

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1 Torrential rains on July 8, 2019, were a case in point. Total rainfall in Arlington measured 3 to 4  
2 inches in a single hour, with Four Mile Run rising by 11 feet. Rainfall data from the national  
3 airport indicated the equivalent of a 150-year storm; other data across Arlington suggested a  
4 500- to 1,000-year storm. The torrential rains flooded Lubber Run Park, toppling trees, tearing  
5 out bridges, and leaving trails covered with sand and silt. When a tree fell over lower Lubber  
6 Run south of Arlington Boulevard, its roots ruptured the sanitary sewer pipe under the bank. The  
7 creek dove into the sewer line and went entirely underground. Until the county repaired the  
8 sewer pipe almost 2 weeks later, the confluence of Lubber Run with Four Mile Run was  
9 completely dry.

10 Severe floods threaten fish and other aquatic life, flushing them downstream while disrupting  
11 their habitats and impairing water quality. Every storm brings fluctuations in water temperatures  
12 and in dissolved oxygen levels, further stressing aquatic life. After the storm passes, the  
13 floodwaters release loads of sediment, burying stream gravels and degrading streambed habitats.  
14 As a result, streams that once supported species of relatively large fish now sustain reduced  
15 populations of a few types of small fish that tolerate degraded conditions, such as blacknose  
16 dace. Fish decline is mirrored by a decline in the number and variety of the aquatic insects and  
17 other creatures that live in or on streambed gravels and silts. Only relatively tolerant species  
18 survive, such as midges, black flies, and aquatic worms. County-commissioned assessments in  
19 2011 found all three of our local creeks to be in poor to very poor condition compared to state  
20 reference streams.

21 Some stream sections are stabilizing (no longer downcutting and eroding streambanks) because  
22 they have scoured down to the erosion-resistant bedrock. Many stream sections are also now  
23 lined with riprap (boulders dumped along streambanks) to control erosion. Sunfish, absent from  
24 fish counts in 2011, have reappeared in all three of our neighborhood streams, an indication that  
25 conditions might be improving.

26 Unconnected to their floodplains, however, our local streams retain their erosive power, and  
27 riprap stream linings only push streambank erosion to unlined sections downstream. Moreover,  
28 erosion continues from stormwater outlets that open onto degraded gullies. Examples in our  
29 neighborhood parks include the gullies below 2nd Road North in Northside, South Park Drive in  
30 Southside, and the Edison Park playground in Greenbrier. Stormwaters on July 8, 2019, started a  
31 new gully in Lubber Run Park at the foot of 3rd Street North after overwhelming the storm  
32 drains there, illustrating how easily erosion can begin. The county repaired the gully in spring  
33 2020, but summer thunderstorms damaged the repairs, reopening parts of the gully.

34 Until the 2000s, Arlington County lacked reliable data on the extent of stream degradation in  
35 Arlington and the potential for stream restoration. In 2001, the county launched a program to  
36 engage local volunteers in monitoring conditions in Arlington's streams, including levels of  
37 bacteria and nutrients (nitrogen and phosphorus) as well as the presence and abundance of  
38 aquatic insects and other streambed denizens. Arlington Forest commends the county for its  
39 successful stream monitoring programs based on citizen science in all three of our neighborhood  
40 creeks. We urge the county to continue the programs.

41 In recent years, the county has met TMDL requirements in part by completing an award-winning  
42 stream restoration project on the lower (estuarine) portion of Four Mile Run and by restoring  
43 degraded sections of streams in North Arlington: Donaldson Run (in progress), Gulf Branch (in

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1 planning), and Windy Run (completed). On Donaldson Run, for example, restoration has  
2 included reconnecting the stream to its floodplain and reinstalling meanders. Workers have  
3 placed boulders to mimic natural features such as splash pools and streambank linings for  
4 channeling streamflow energy inward. They have also planted trees and other vegetation on the  
5 restored and reconnected floodplain.

6 One reason for stream restoration is to protect human health. Before stream restoration on  
7 Donaldson Run, stream erosion had exposed and undercut a sanitary sewer pipeline (since  
8 repaired and reburied). Similar erosion has exposed the concrete casings for sanitary sewer  
9 pipelines in both Lubber Run (downstream from the amphitheater) and Four Mile Run  
10 (downstream from its confluence with Lubber Run). Exposed sanitary sewer pipes can burst  
11 during storms, releasing sewage into streams. Contact with the bacterium *Escherichia coli* (better  
12 known as *E. coli*) can sicken and kill.

13 During the torrential rains of July 8, 2019, the floodwaters in Lubber Run ruptured the concrete  
14 casings of manhole covers on the sewage pipes just south of Arlington Boulevard. The waters  
15 pushed off the manhole lids, then inundated the open manholes, potentially releasing human  
16 waste into the stream. Although the floodwaters soon receded, it took almost 2 weeks for the  
17 county to repair the damage, exposing the open sewers to potential subsequent floods. The  
18 county can mitigate such health hazards by restoring Lubber Run.

19 Stream restoration is no panacea. The core problem is the extent of impervious surfaces across  
20 Arlington, along with inadequate stormwater management planning when Arlington was first  
21 developed in the 1930s–50s; stream restoration cannot resolve such issues. Moreover, restoration  
22 takes heavy equipment, and it requires removing trees, disturbing soils, and temporarily  
23 disrupting park facilities. Some residents of Arlington Forest oppose stream restoration projects  
24 for fear of making matters worse at high cost to taxpayers.

25 However, the restored sections of Donaldson Run and Windy Run in North Arlington weathered  
26 the July 8 floods much better than the degraded creeks in our neighborhood. The no-action  
27 alternative would invite ongoing catastrophic flooding, toppled trees, infrastructure damage,  
28 ecological degradation, and risks to human health and safety. In June 2020, for example, a 160-  
29 year-old tree (a northern red oak) fell over a trail along Lubber Run after being undercut by years  
30 of streambank erosion. In our neighborhood survey, the vast majority of respondents (87 percent)  
31 expressed support for county projects to restore streambeds in our neighborhood parks.

32 It might be too soon. Streambed restoration might not be feasible in our neighborhood creeks  
33 until their upper watersheds have been treated. The restored sections of Windy Run and  
34 Donaldson Run are near their headwaters, whereas Lubber Run Park is at the lower end of a  
35 watershed with impervious surfaces across almost half (46 percent) of its relatively large area.  
36 The watershed, 1,029 acres in size (about one-tenth of which lies in Arlington Forest), extends  
37 all the way to Lee Highway in North Arlington. Almost all of the headwaters and tributaries are  
38 piped, with few if any mitigating bioretention projects or other watershed retrofits. (A major  
39 exception is Ballston Pond, which can capture about 30 percent of the stormwater runoff in the  
40 Lubber Run watershed but is no longer fully functional.) The result is a stormwater blowout  
41 downstream in Lubber Run Park with every major storm. Until Ballston Pond renovation and  
42 other upstream watershed retrofit projects are in place, restoration of Lubber Run might have to  
43 wait.

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### **Water Pollution**

Stormwater runoff washes nitrogen, phosphorus, and other pollutants into our neighborhood streams and ultimately into Chesapeake Bay. Underground pipes comprise most of the stormwater drainage system for the larger Four Mile Run watershed, including Long Branch and Lubber Run. The gutters of Ballston, for example, can be subject to wastewater dumping, and they lead to a storm main (a pipe at least 36 inches in diameter) that empties into Lubber Run just downstream from the North George Mason Drive overpass.

The residents of Arlington Forest strongly support county efforts to prevent point-source pollution (the dumping of chemicals and wastewater), and we are committed to reporting evidence of toxic materials poured into storm drains. Residents routinely carry cell phones on their frequent walks through our neighborhood parks, and they can immediately report any streamwater discoloration or other signs of pollution. The county has an opportunity to post educational signs in our parks telling residents what to look for and where to report it.

Yards, roads, driveways, and other surfaces collect nonpoint-source pollutants such as motor oil, fertilizers, pesticides, detergents, street trash, and animal waste. Stormwaters and meltwaters then carry the trash, waste, and pollutants into our neighborhood streams. Downstream impacts from nitrogen, phosphorus, and sediments include reduced dissolved oxygen levels in Chesapeake Bay, killing fish and other estuarine life.

The residents of Arlington Forest are aware of related issues, with large majorities in our neighborhood survey reporting pet feces (81 percent) and improperly disposed garbage (81 percent) as threats to the health of our parks. Waste from dogs, cats, and other animals contaminates streamwater with *E. coli*, posing a hazard to human health. Unhealthy levels of coliforms are common in our neighborhood creeks, as are nutrients, sediments, and street litter. Trash in our streams, especially plastic, is a growing threat to the health of aquatic systems, including estuaries like Chesapeake Bay and even the world's oceans.

Arlington County's strategy for meeting its Chesapeake Bay TMDL requirements includes installing or restoring facilities that slow and filter stormwater runoff, such as Ballston Pond, a 4-acre stormwater retention facility draining 300 acres in the Lubber Run watershed. In our own neighborhood, the wetland known as Sparrow Pond is another stormwater retention facility; located in Glencarlyn Park on lower Arlington Forest Branch, the marsh reduces nonpoint-source pollution and sedimentation through a system of capture ponds. The county is planning to restore the main pond to its original depth, add a sediment collection forebay, and improve the surrounding wetland habitat. Arlington Forest commends the county for the planned renovation project, yet we recognize the need to leave the current beaver activity in place while monitoring the impacts.

Sparrow Pond is in a state-designated "resource protection area" on both sides of Arlington Forest Branch. Intended to protect Chesapeake Bay, resource protection areas encompass lands within 100 feet of a stream or gulley, including parts of some backyards adjacent to our neighborhood parks. These areas are vital stream buffers for reducing stormwater runoff, preventing erosion, and filtering out pollutants. Arlington Forest supports county efforts to sustain native vegetation in resource protection areas throughout our neighborhood.

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## ***Stormwater Management Planning***

To meet TMDL requirements for Chesapeake Bay, Arlington County launched studies in the 2000s that culminated in the county's current Stormwater Master Plan, adopted in 2014. The plan combined and updated the previous Stormwater Master Plan (from 1996) and the Watershed Master Plan (from 2001), giving a comprehensive overview of the challenges and opportunities associated with stormwater runoff in Arlington. Arlington Forest commends the county for framing the issues and proposing the means for resolving them for residents to find all in one place (the Stormwater Master Plan website shown in appendix D).

The starting point was (and is) the extent of impervious surfaces in Arlington County, coupled with an overwhelmed legacy infrastructure for stormwater management. Because Arlington is fully developed and pipeline replacement is costly and disruptive, opportunities to overhaul the antiquated system are limited. In its Stormwater Master Plan, the county listed the highest priority pipelines for replacement, and several projects have been completed or are underway.

The main opportunities for improving stormwater management in Arlington are aboveground—as simple as street sweeping. For redevelopment projects (such as in the Ballston Metro area), the county requires developers to take stormwater mitigation measures, which can range from installing pervious pavers to emplacing underground cisterns and building green roofs. Other county initiatives include stream restoration, watershed retrofits (such as bioswales and rain gardens), and large-scale bioretention projects (such as Ballston Pond renovation). Taken together, the measures constitute a comprehensive approach to stormwater management in Arlington: through redevelopment, street sweeping, stream restoration, Ballston Pond renovation, and watershed retrofit projects, the county can capture and filter stormwater runoff while reducing its rate and volume, thereby improving conditions in Arlington's streams and diminishing outflows of pollutants into Chesapeake Bay.

In the short term (through 2028), stream restoration promises the greatest benefits, including 35 percent of the nitrogen and 59 percent of the phosphorus reduction. Accordingly, the county has focused many of its limited resources on stream restoration projects. Our neighborhood creeks in Arlington Forest are obvious candidates, but they are lower in priority for the county than most other Arlington streams.

Watershed retrofits represent a rising share of the benefits in the longer run (through 2063), reaching 38 percent of the nitrogen and 25 percent of the phosphorus reduction. In its 2013 Watershed Retrofit Study, the county listed 1,176 potential watershed retrofit projects, including 86 projects for our neighborhood's Four Mile Run subwatershed, 145 for the entire Lubber Run watershed, and 11 for Arlington Forest Branch. The list included six high-priority projects in our immediate neighborhood:

1. a rain garden on North Edison Street between 2nd and 3rd Streets North;
2. disconnection of the parking lot and trailer storage lot for the Arlington Assembly of God;
3. street bioretention on 3rd Street North between North Columbus Street and North Park Drive;
4. street bioretention at 2nd Street North and North Columbus Street;
5. street bioretention at the intersection of North Wakefield Street and 2nd Street North; and



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6. bioretention at the Lubber Run Community Center.

The “rain garden” proposed for North Edison Street became part of the Edison Park playground renovation currently underway, with watershed retrofits in the resource protection area (a bioswale and reforestation in the area above the gully). “Disconnection” (proposed for the church parking lots) usually means channeling stormwater runoff into an area where it can filter into the ground instead of dumping it into a storm sewer. “Street bioretention” typically involves installing a vegetated swale or other depression (such as a dry pond) along a street right-of-way. None of the parking lot and street projects have gone beyond the conceptual stage.

“Bioretention” at the Lubber Run Community Center is an example of using redevelopment to improve stormwater management. An underground cistern captures the stormwater runoff from the roof of the new building, with the overflow going into a bioretention pond that filters the water as it infiltrates into the ground. New underground parking and green roofing has greatly reduced the area of impervious surfaces on the site. Renovated parts of the site include about 200 newly planted shade and understory trees, mostly reflecting the native mix of trees in our area. The trees will add beauty to the site while improving its ecological and watershed function.

Ballston Pond renovation is another form of bioretention, one with downstream benefits for our community. A retention facility like Ballston Pond captures stormwater runoff and gradually releases it, mimicking natural wetland processes. The sheer size of Ballston Pond—4 acres—will benefit Arlington Forest by retaining floodwaters in its 300-acre drainage area, capturing and slowly releasing up to 30 percent of the stormwater runoff in the entire Lubber Run watershed. By reducing the volume of stormwater flows into Lubber Run, the project will alleviate the impacts of flooding in Lubber Run Park.

Through its comprehensive stormwater management planning, Arlington County has created a commendable blueprint for mitigation projects of various types and sizes on public land. In addition to Ballston Pond and its six high-priority watershed retrofit projects in or near Arlington Forest, the county has listed more than a dozen lower priority projects for our immediate neighborhood. Street bioretention is proposed for South Park Drive, for example, and a bioswale for the Lubber Run Amphitheater.

Because most intersections in Arlington Forest lack traffic circles, the county has an opportunity to tear out asphalt and create islands of open space to capture precipitation while also calming traffic. In our neighborhood survey, many respondents pointed to speeding issues on community thoroughfares such as North Edison Street in Greenbrier and North Park Drive, North Henderson Road, and North Columbus Street in Northside. Such thoroughfares might have opportunities for traffic-calming measures that could double as watershed retrofits for filtering precipitation.

For example, stormwater pours from 3rd Street North in Northside across the intersection with North Park Drive, overwhelming storm drains at the base of the street above Lubber Run Park. A watershed retrofit (such as a dry pond) in the intersection with North Park Drive, together with the planned street bioretention along 3rd Street North, might help to alleviate the situation.

However, no new watershed retrofit projects in our neighborhood appear to be under active consideration, perhaps due to cost. Street bioretention is especially costly due to the expensive utility work and street alterations needed. To raise the needed funds, Arlington County is

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considering either increasing the sanitary district tax component of the annual property tax for homeowners or establishing a stormwater user fee based on the area of impervious surfaces on a property. Stormwater user fees are common in urban areas worldwide, encouraging homeowners to minimize the extent of impervious surfaces on their properties.

Homeowners have opportunities of their own. In a way, the spread of impervious surfaces in Arlington replays the “tragedy of the commons:” by expanding home footprints, individuals derive personal benefit but shrink the open-space resource to the detriment of all. The woodlands and other green spaces in Arlington Forest, whether on public or on private land, represent a shared resource and a common buffer shielding the community from the worsening impacts of stormwater runoff. The residents of Arlington Forest respect and support private property rights, but we also recognize open space as a common good to be sustained through community action in cooperation with willing homeowners—and with county help.

Arlington Forest comprises parts of three watersheds: Lubber Run, Four Mile Run, and Arlington Forest Branch. Homeowners in Arlington Forest have opportunities to reduce stormwater runoff in all three subwatersheds by:

- leaving mature forest intact or restoring native vegetation, especially in areas adjoining public parkland and resource protection areas;
- reducing the area of impervious surfaces and improving the capacity of soils to absorb and filter rainwater, for example by expanding areas of mulch and native vegetation; and
- installing bioretention and rain harvesting measures such as swales, cisterns, rain barrels, dry wells, and rain gardens.

Only 32 percent of the respondents to our neighborhood survey reported stormwater management features on their properties, and county incentives such as the StormwaterWise Landscapes Program were little known and less used: only 15 percent of the respondents were aware of them, and only 3 percent took advantage of them. AFCA has an opportunity to explore ways of working with the county to better publicize such programs within our community. For its part, the county has an opportunity to offer incentives to homeowners to sustain or restore mature forest, especially on property bordering parks and resource protection areas.

In short, the residents of Arlington Forest have a vested interest in maintaining healthy, flourishing nature parks; and green spaces throughout our neighborhood, both public and private, are a vital community resource. Homeowners can help sustain our urban forest by conserving open space and improving stormwater management on their own properties. The county has opportunities to mitigate the problems associated with stream degradation and water pollution through green engineering, including watershed retrofits—and, in good time, stream restoration in our neighborhood creeks, beginning with Lubber Run. The county might also consider other opportunities for mitigating the effects of stormwater runoff in our nature parks, even as simple as placing sections of fallen trees as checkdams in eroding gullies.

### ***Recommendations***

- AFCA should work with the county to better explain the issues associated with stormwater management in Arlington, including the reasons for resource protection areas as well as for a comprehensive approach to stormwater management. That includes better publicizing

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homeowner incentives for watershed retrofits in connection with homeowner incentives for tree planting.

- The county should work with AFCA to explore stormwater management options for Arlington Forest on public land and street rights-of-way, including watershed retrofits and the potential for stream restoration in our creeks, starting with Lubber Run.
- *Other?*

### **Invasive Species**

“A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.”

—Aldo Leopold, *A Sand County Almanac* (1949)

The residents of Arlington Forest want their nature parks to model ecological integrity by sustaining diverse communities of native plants, with plentiful habitat for native fish and wildlife. Global trade and travel have introduced nonnative species into our parks, often by way of our own backyards. When nonnative species harm the environment by destroying or supplanting native species, they become invasive.

Gypsy moth, a Eurasian insect that can defoliate oaks, is now established in our area. Outbreaks have defoliated trees in our parks but not in recent decades. Emerald ash borer has killed many local ashes; dead and dying trees are evident throughout our area, both along streets and in parks. Dutch elm disease as well as chestnut blight have removed many elms and almost all American chestnut from our forest canopies. (You can see several mature blight-resistant American chestnuts near the nature center in Potomac Overlook Regional Park in North Arlington.)

Domestic cats allowed to roam free prey on songbirds and small mammals. Birds that nest on the forest floor or in shrubs are especially vulnerable. Cats kill more than a billion birds across the United States each year; as nonnative predators and a major cause of bird decline, housecats are, in effect, an invasive species when released outdoors.

Some of the most serious threats to our local parks now come from invasive plants such as English ivy, lesser celandine, kudzu, porcelainberry, bamboo, bush honeysuckle, wineberry, Japanese honeysuckle, Japanese knotweed, garlic mustard, and more. Such plants offer poor habitat for native wildlife. Deer, birds, and other animals will either not eat the leaves and fruits or derive little food value from them. Worse, invasive plants outcompete native plants, depriving them of sunlight, nutrients, and the space they need to grow.

The greenway corridor bordering the W&OD Trail along Bluemont and Glencarlyn Parks is overrun by invasive plants. The greenway is kept free of forest growth to protect the high-tension powerlines. Invasive plants such as porcelainberry, Japanese knotweed, kudzu, wineberry, multiflora rose, bamboo, mimosa, ailanthus, English ivy, Japanese honeysuckle, Japanese stiltgrass, and autumn climatis have colonized most open areas, joined by native pokeweed.

For example, porcelainberry has overgrown large areas in Glencarlyn Park east of the W&OD Trail, overwhelming shrubs and trees and forming monocultures. In some places, kudzu is rapidly overgrowing all other plants (including porcelainberry), forming monocultures of its

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own. Japanese knotweed has formed monocultures in many places along the W&OD Trail and in areas disturbed by floods along Four Mile Run.

Along parts of the W&OD Trail, the county has worked with Dominion Energy and NOVA Parks to remove invasive species and establish native prairie vegetation, such as little bluestem, milkweeds, and goldenrods. The county can add to the beauty and wildlife habitat value of the W&OD greenway by doing the same in the Bluemont/Glencarlyn Park corridor, working with partners to replace invasive plants with native prairie vegetation and (where appropriate) wetland vegetation in the open spaces under the high-tension powerlines and east of the W&OD Trail. One success story is a small triangular area between the W&OD Trail and North Carlin Springs Road, where partners have restored goldenrod and other native prairie vegetation.

Lubber Run Park is another model of invasive species control. English ivy, escaped from backyards, covered large parts of the park in the 1990s. Growing up trees, English ivy can encase branches, keeping the life-giving sun from reaching a tree's leaves. The added weight can topple trees in windstorms, and the vine harbors bacterial leaf scorch, a pathogen for hardwoods. Mats of English ivy on the ground suppress all other plant life. The shallow roots do not control erosion but rather facilitate downstream ivy spread as pieces of vine are torn out and washed away during storms.

Lesser celandine, still persistent in places, was another major threat to Lubber Run Park. You might have noticed it as a green mat carpeting park floors in early spring, featuring yellow flowers that look like buttercups. Lesser celandine comes out earlier in the year than native flowers, forming monocultures that suppress native plants such as bloodroot, trillium, and spring beauty. Garlic mustard, bush honeysuckle, and other invasive plants were also common.

In 2001, Arlington Forest neighbors led by Greenbrier's Paul Kovenock (a major source of the information in this section, referenced in appendix D) organized an invasive plant removal project in Lubber Run Park. They started by cutting English ivy vines and pulling the ivy away from the bases of trees. In 2005, AFCA obtained a grant from Arlington's Neighborhood Conservation Program for a 5-year project to work with homeowners and neighborhood volunteers to control English ivy, lesser celandine, garlic mustard, and other invasive plants in Lubber Run Park.

As a result, native wildflowers like bloodroot and spring beauty have reappeared in the park. In 2012, field botanists hired by the county identified 181 different species of native plants in our restored Lubber Run woodland. Local volunteers check the park for invasives each spring and note where herbicidal spraying is needed, particularly for English ivy and lesser celandine. A local donor has made funds available for the county to continue removing invasives from Lubber Run Park.

Through the Arlington Regional Master Naturalist program, the county continues to recognize and use the Lubber Run initiative as a model for other parks and neighborhoods. The residents of Arlington Forest commend the county for working with neighborhoods like ours and for using the Arlington Regional Master Naturalists and the Tree Stewards to mobilize volunteers for controlling invasive species in Arlington's nature parks. We urge the county to continue and strengthen volunteer programs for detecting and removing invasive species from our parks.

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## **Recommendations**

- The neighborhood supports the control of English ivy, lesser celandine, kudzu, Japanese knotweed, and other invasive plants. Neighbors should work with the county, in alignment with programs such as Tree Stewards and Arlington Regional Master Naturalists, to sustain invasive plant control in Lubber Run Park and extend it to Glencarlyn Park, for example in the resource protection areas at the confluence of Lubber Run with Four Mile Run and along Arlington Forest Branch.
- The county should work with Dominion Energy and NOVA Parks to remove invasive species and establish native prairie and wetland vegetation, as appropriate, throughout the Bluemont/Glencarlyn Park corridor along the W&OD Trail.
- *Other?*

## **Deer Overpopulation**

“I have seen every edible bush and seedling browsed ... [and] the starved bones of the hoped-for deer herd, dead of its own too-much.”  
—Aldo Leopold, *A Sand County Almanac* (1949)

The residents of Arlington Forest enjoy seeing native wildlife, whether bats, frogs, squirrels, raccoons, or native birds of all kinds. We commend the county for its detailed descriptions of our native wildlife in the Arlington County Natural Heritage Resources Inventory, including the new animals that have moved into our neighborhood. Foxes, rabbits, and deer, now often seen, were rarely if ever spotted in Arlington Forest 20 years ago.

Predator-prey relationships among foxes, rabbits, mice, owls, and other native species keep most forest animals in balance with our forest plants. However, the main predators of white-tailed deer—wolves and cougars—were extirpated from Virginia long ago (the last recorded wolf was killed in the winter of 1909–10). Coyotes and bobcats, both sighted in Arlington County, are too small and solitary to be effective deer predators. Although black bears sometimes prey on fawns, bears are extinct in Arlington.

By the 1920s, overhunting had all but eliminated deer from Virginia as well; but deer were reintroduced from other states, and their populations have rapidly grown in the absence of natural controls. Hunting and collisions with vehicles—the two remaining checks—have failed to control deer numbers. More deer are thought to inhabit Virginia now than when colonists first settled Jamestown in 1607, and they sometimes form sizable herds in Glencarlyn Park.

Deer will eat a wide range of plants. A single deer can eat 5 to 7 pounds of plants per day, preferring native woodland plants (and thereby making way for invasive plants). Foraging and browsing by deer can eliminate most understory vegetation from a woodland up to about 6 feet from the ground, depriving many insects, birds, amphibians, reptiles, and small mammals of habitats they need. Favorite woody foods include oak seedlings and saplings; heavy cropping by deer can suppress oak regeneration in the forest canopy. Oaks host hundreds of leaf-eating insect species that migrating birds rely on for food, so the effects of deer overpopulation can ripple through the system, altering forest composition, changing habitats, and reducing biodiversity.

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Moreover, residents on streets adjacent to our neighborhood parks have complained of deer coming into their yards to eat plants in gardens carefully cultivated at great time and expense, especially ornamental plants such as hostas, lilies, and viburnums. Worse, too many deer can pose safety hazards, particularly from collisions with vehicles. Deer are also a primary host for the black-legged tick, which transmits Lyme disease to people. Hundreds of thousands of Americans are thought to get Lyme disease each year.

White-tailed deer in northern Virginia are either approaching or exceeding the carrying capacity of the land in three regards:

- Occasional photos of malnourished deer in our area suggest that white-tailed deer, in some places, might be approaching their *biological* carrying capacity (the point at which deer themselves starve, famously noted by Aldo Leopold for the Southwest of the 1930s as “the starved bones of the hoped-for deer herd, dead of its own too-much”).
- The influential movie *Bambi* (1942) created widespread sympathy for deer in the United States. However, concerns about deer impacts on landscaping (ornamental shrubs and flowers) as well as growing risks from vehicle collisions and Lyme disease suggest that white-tailed deer, in some areas, might be approaching their *cultural* carrying capacity (the point at which people and communities will tolerate deer in such large numbers).
- Many studies suggest that white-tailed deer have already exceeded the *ecological* carrying capacity of the land in mid-Atlantic forests by altering habitats and plant/animal communities to the point where native forest ecosystems, no longer able to function, are transitioning to more impoverished systems with greatly reduced biodiversity.

Arlington Forest welcomes the return of white-tailed deer to our neighborhood, but we share the county’s concern about overpopulation. Woody vegetation in our parks shows growing signs of being cropped by deer, especially in winter. Problems with overbrowsing begin when deer populations exceed 20 deer per square mile, and some park managers in northern Virginia report that many deer or more. Too many deer pose a threat to the ecological integrity of our nature parks, to the value and enjoyment of properties affected by deer browsing—and ultimately to the deer herds themselves.

Deer management in our area has ranged from fencing to hunting. Fences can be effective if they are at least 8 feet high. Chemical repellents are ineffective if they wash off in the rain or if deer get used to them (as they often do); deer can also get used to sound repellents. Birth control methods are ineffective and stressful to deer, making them sick. Reliance on predators in our area, such as foxes, coyotes, and bobcats, is futile. However, organized hunting can be effective in controlling numbers of deer.

The county has an opportunity to inventory the number of deer in Arlington, assess the threat they pose to our neighborhood parks, and take steps to control deer populations. Fairfax County, Montgomery County, and the national parks in our area all have successful deer management programs that Arlingtonians might learn from.



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## **Recommendation**

- Arlington Forest urges the county to inventory the deer population in Arlington and to assess the scope of the damage by deer to plants in our local parks and whether our local deer have exceeded the ecological carrying capacity of the land.
- We urge the county to assess the extent of damage by deer in Arlington to the safety, health, and well-being of residents, including damage from deer browsing on private property, and whether our local deer have exceeded the cultural carrying capacity of the land.
- We urge the county to lay plans for managing deer populations within the biological, cultural, and ecological carrying capacities of the land.

## **Neighborhood Trees**

The mature trees that give character to the streets of Arlington Forest are, in some respects, an extension of adjacent parkland. The developer of Arlington Forest left many trees standing and planted new ones, giving our neighborhood its name. The trees are part of our neighborhood identity and a visually appealing backdrop to our community. Neighbors devote time and resources to tending their own trees as well as the trees and other vegetation on Northside traffic circles and on the buffer strips along Arlington Boulevard.

## **Urban Tree Benefits**

The neighborhood trees in Arlington Forest are mostly hardwoods native to Arlington, including oaks, maples, hickories, sweetbay, tuliptree, sweetgum, American sycamore, dogwood, redbud, river birch, serviceberry, and more. Pines, American holly, southern magnolia, and other evergreens are mixed in, along with exotic ornamentals such as zelkova, deodar cedar, crepe myrtle, and saucer magnolia.

Trees of all types confer many benefits. Trees produce oxygen, store carbon, purify the air, soak up stormwater, reduce air temperatures in summer, and create habitat year round for birds, bats, squirrels, and other wildlife. Native trees in particular furnish critical habitats for native insects, birds, and mammals.

Environmental benefits from trees have economic and social value as well. In its Urban Forest Master Plan, Arlington County estimated that its trees furnish values worth more than \$1.8 million in air pollution control and more than \$6.8 million in stormwater control each year. Healthy mature trees can add up to 10 percent to residential property values. Leafy neighborhoods correlate with stronger communities and lower levels of stress and crime.

Arlington Forest has many large old trees, with diameter sizes of 2 feet or more. At least one neighbor has a large tree (an eastern redcedar) on the county list of designated Notable Trees of Arlington. Until recently, the neighborhood featured another Notable Tree of Arlington: a large American holly in the shopping center circle on North Park Drive. The holly, a longstanding neighborhood symbol, was damaged and dying, so the neighborhood replaced it in 2018 with a young scarlet oak, a common and attractive native upland tree.

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Arlington Forest commends the county for raising community awareness of neighborhood trees through its Notable Trees program. We also appreciate the availability of support and advice from volunteer programs such as Tree Stewards and Master Gardeners. We urge the county and AFCA to help give these programs the public visibility and support they deserve.

### **Tree Cover**

Arlington County has set a goal of 40 percent urban forest cover overall. The county has met the goal: a tree cover study for Arlington from 2017 showed an overall urban forest cover of 41 percent (excluding the airport and federal lands). Arlington Forest had an urban forest cover of 62 percent, one of the highest in the county, thanks to our nearby nature parks. The neighborhood's estimated urban tree cover potential was even higher—76 percent—so residents have room to grow more trees.

Conditions are not ideal for large trees in Arlington Forest. Urban trees are under stress from soil compaction, damage from machinery, competition with lawn grass, and other adverse conditions, giving them less resilience and shorter average lifespans than trees in natural areas. The small property sizes in Arlington Forest, along with the presence of backyard wires and the ongoing expansion of homes, also limit the space needed for large trees. Some of our aging oaks, maples, and other large trees are in visible decline, in part due to poor growing conditions in our urban landscape.

Stress from changing climates and unusual weather patterns also figures in. Most sycamores lost their leaves in spring 2020 due to anthracnose, a fungus stimulated by unusually cool and wet spring weather. The condition is not fatal, and the sycamores leafed out again by summer. A prolonged summer drought in 2019 caused dieback or outright mortality in many oaks across northern Virginia, especially in upland urban neighborhoods like ours. The so-called oak decline is especially prominent in Arlington Forest Park, where about a dozen large oaks have died.

Tree decline and mortality, along with fear of falling branches, have led many neighbors to remove large trees from their properties. Many have replaced the trees, if at all, with understory trees such as dogwoods and redbuds. In our neighborhood survey, 20 percent of the respondents reported a large tree dying on their property within the previous year, and 50 percent reported removing a large tree within the previous 10 years, with only half having replaced the tree. From 2008 to 2016, Arlington Forest had a net tree cover loss of 1 percent.

From 2011 to 2016, however, our neighborhood reversed the loss, adding about 4 percent to our overall tree cover. The fluctuating rate of tree removal and replacement in Arlington Forest indicates a willingness among many homeowners to replace trees or plant new ones. Our neighborhood has the potential to expand our urban tree cover, even if not always with large shade trees.

### **Tree Planting Opportunities**

The county has opportunities to work with the neighborhood to get more homeowners in Arlington Forest to plant trees. Through its Tree Distribution Program, Arlington County offers free native trees to residents for planting on their properties. For its part, AFCA encourages homeowners to replace canopy trees and add new ones through a neighborhood tree grant

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program that covers part of the cost. Arlington County also has a Tree Canopy Fund administered by EcoAction Arlington, which plants trees for willing homeowners at no cost. More than half of the respondents to our neighborhood survey said that they would take advantage of such programs if they qualified. AFCA and the county have an opportunity to work together to better coordinate and publicize their tree programs in our neighborhood, perhaps with help from the Tree Stewards.

The tree cover in our neighborhood parks appears to be stable. Natural cycles of tree mortality and regeneration are predictable; oak decline in Arlington Forest Park, for example, is being offset by natural recruitment of seedlings and saplings, many of them oaks. The county has also planted trees in the few large canopy gaps in our neighborhood parks, such as at the south end of Lubber Run Park. The trees removed during reconstruction of the Lubber Run Community Center are being replaced in large numbers as the site is replanted.

Our neighborhood street tree cover also appears to be stable. Some survey respondents reported that street trees on sidewalk strips and on the buffer strips along Arlington Boulevard sometimes die without being replaced. However, the vast majority of survey respondents (80 percent) noticed no street trees on county land that were removed and not replaced.

The two churches adjacent to our neighborhood, the Arlington Forest United Methodist Church and the Arlington Assembly of God, have large properties with room for more trees. In the 1940s, according to a homeowner at the time, the same areas were wooded, with residents going there to cut Christmas trees (presumably young pines). The county, working with the churches and with support from EcoAction Arlington and the Tree Stewards program, might have an opportunity to plant more canopy trees on church grounds, perhaps in conjunction with watershed retrofits to capture stormwater runoff from the sites.

The trees in Arlington Forest, whether on public or on private land, are a collective community resource that is a source of pride and comfort to residents. Our neighborhood has an aesthetic, environmental, historical, and economic interest in working with the county to sustain and enhance the parklike character of Arlington Forest.

### ***Recommendations***

- The county should coordinate with AFCA in better communicating homeowner programs for replacing trees and planting new ones, possibly with help from the Tree Stewards program.
- The county should continue its policies of replacing street trees that have died or been removed and filling canopy gaps in our neighborhood parks.
- *Other?*

### **Arlington Boulevard Buffer Strips**

The buffer strips between Arlington Boulevard and the parallel service roads for Arlington Forest, though zoned the same as adjacent Arlington Forest Park (S-3A, Special District), are managed quite differently. The county manages the park as a natural resource conservation area for the remnant native plant community known as dry gravel cap-xeric oak/poverty oatgrass glade. By contrast, some buffer strips are used for residential parking and most are covered by invasive species.

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1 A geologic map of Arlington County shows the area where Arlington Boulevard crosses Lubber  
2 Run as “artificial fill” (amorphous soils used for construction). In the 1930s, roadbuilders used  
3 artificial fill to bury Lubber Run in a culvert and build Arlington Boulevard over it. In the  
4 process, they left berms and roadcuts, including the slopes and buffer strips on Arlington  
5 Boulevard adjacent to the Lubber Run overpass.

6 The slopes and most buffer strips are now thinly wooded. The intent seems to be to hold soils in  
7 place while maintaining pleasant forest screens that shield the neighborhood both visually and  
8 audially from a busy thoroughfare. Unfortunately, the trees tend to be small and scraggly in the  
9 poor soils and limited space, and the wooded strips are infested with invasive plants.

10 The vegetation is a random blend of pioneer trees (early colonizers of open space, such as  
11 Virginia pine, eastern redcedar, and black locust); planted conifers, such as pitch pine and white  
12 pine; native oaks that tolerate stressful conditions, such as white oak and pin oak; and invasive  
13 shrubs and vines, including bush honeysuckle, English ivy, and Japanese honeysuckle. In some  
14 places, neighbors have planted flowers and other vegetation to improve the appearance of the  
15 strips. However, native trees and invasive plants prevail.

16 The same random mix, joined by kudzu, Japanese knotweed, and a panoply of additional  
17 invasive plants, extends along the embankment west of Lubber Run between Arlington  
18 Boulevard and Southside and along the steep slope separating Greenbrier from Arlington  
19 Boulevard. The slope below Greenbrier appears to be managed for any vegetation that will hold  
20 the soils in place; Japanese honeysuckle is rampant, and English ivy encircles the trunks of many  
21 trees. None of the slopes or wooded buffer strips show beauty or ecological integrity.

22 One buffer strip is open rather than wooded. The Northside buffer strip over Lubber Run features  
23 a storm drain and lawn grass. It resembles the buffer strips separating Arlington Boulevard from  
24 the service road to North Henderson Road (next to the two church properties), where the  
25 vegetation is lawn grass with a few trees (one dead). The Lubber Run buffer strip might be a  
26 good candidate for a watershed retrofit, such as a bioswale planted with native vegetation.

27 The service roads are so narrow that residents in both Northside and (in the past) Southside have  
28 used the buffer strips for parking, even though the strips are zoned as public land. Parking cars  
29 on the buffer strips has stripped away vegetation and compacted soils, degrading conditions for  
30 trees and other plants.

31 In Southside, through a project funded by the Neighborhood Conservation Program, the county  
32 widened the service road and installed curbs along the buffer strips. Completed in 1998, the  
33 project created parking spaces for residents while keeping people from using the strips for  
34 parking. Arlington Forest commends the county for a successful rehabilitation project, which has  
35 left the buffer strips in better condition in Southside than in Northside.

36 Between North Park Drive and North Henderson Road, residents continue to use the buffer strip  
37 for parking. The county has an opportunity to protect the strip in Northside in the same way as in  
38 Southside by widening the service road for parking and installing curbs. In our neighborhood  
39 survey, a majority (53 percent) expressed support for such a project.

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On both sides of Arlington Boulevard, the buffer strips might have originally been extensions of the rare oak–grass ecosystem at Arlington Forest Park. The neighborhood might have an opportunity to have some or all of the buffer strips managed for the same native ecosystem. The tradeoff would be less screening, but it is not clear that the buffer strips are wide enough and the soils suitable enough to sustain effective and attractive forest screens.

### **Recommendation**

- The county should conduct a joint study with AFCA and the Virginia Department of Transportation to investigate ways to improve the appearance as well as the ecological and watershed functions of the Arlington Boulevard buffer strips. Issues of beautification, noise abatement, stormwater management, and residential parking should be considered; residents most affected should be included in the process. In the interim, the county should identify areas where maintenance is required to control invasive plants and prevent further deterioration of trees.

## **OTHER CHALLENGES AND OPPORTUNITIES**

Since the original Arlington Forest Neighborhood Conservation Plan in 1991, our community’s awareness of the world has changed. Pivotal developments have included the firming up of climate change science in the 1990s–2000s and rising awareness of severe weather impacts on our area. The 9/11 attacks highlighted a growing need for emergency preparedness in the National Capital Area. An additional need for emergency preparedness—unprecedented in our lifetimes—emerged from the global coronavirus pandemic of 2020.

### **Climate Change**

In 1990, in a little-known law called the Global Change Research Act, Congress called for “a comprehensive and integrated United States research program ... to understand, assess, predict, and respond to human-induced and natural processes of global change.” In response, the U.S. science community has produced reports every 4 years summarizing the impacts of climate change on the United States. The Fourth National Climate Assessment, published in 2017–18, found that communities are experiencing “more frequent and intense extreme weather and climate-related events,” resulting in damage to “infrastructure, ecosystems, and social systems that provide essential benefits to communities.”

Across Virginia, the average number of days with heavy precipitation (3 inches or more) has shown a steady rise in recent decades, including—in our area—heavy rainstorms in June 2006, July 2018, July 2019, and July 2020. The resulting damage to infrastructure and ecosystems has been palpable, generating concern in Arlington Forest. Large majorities of respondents to our neighborhood survey reported threats to the health, beauty, and enjoyment of our neighborhood parks from climate change and unusual weather events (60–79 percent), flood-related damage (58–76 percent), and erosion from stormwater runoff (63–67 percent).

Federal scientists and natural resource managers agree on a two-pronged climate change response: adaptation and mitigation. For example, the U.S. Forest Service has a National Roadmap for Responding to Climate Change with two central components: (1) managing landscapes on the national forests and grasslands to reduce climate-related risks, such as forest

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1 mortality and catastrophic wildfire; and (2) sustaining forests as carbon sinks, thereby offsetting  
2 U.S. carbon emissions and mitigating climate change. Despite such initiatives, strong federal  
3 leadership on climate change has not been sustained at the national level. In its absence, state and  
4 local governments have an opportunity—indeed, an obligation—to take the lead.

5 The main climate-related risks in northern Virginia come from severe weather events, including  
6 storm surges from hurricanes in low-lying parts of Arlington. In Arlington Forest, the main risks  
7 come from high winds and torrential rains. Arlington’s Stormwater Master Plan outlines a  
8 comprehensive approach to stormwater management, including the effects of a changing climate.  
9 In particular, stream restoration and watershed retrofits (bioswales, rain gardens, and the like) are  
10 ways for a county like Arlington—and a community like ours—to adapt. Mitigation takes a  
11 different form: the county’s latest Comprehensive Energy Plan, adopted in 2019, calls for  
12 mitigating climate change by reducing carbon emissions as well as sustaining carbon sinks.

13 Arlington Forest has opportunities for a climate change response through both adaptation and  
14 mitigation. Open space in our neighborhood, whether on public or on private land, represents a  
15 shared resource and a common good for responding to climate change in two basic ways:

- 16 1. Through green engineering (such as watershed retrofits and, when feasible, stream  
17 restoration), we can *adapt* to the effects of a changing climate by reducing the impacts of  
18 stormwater runoff.
- 19 2. By conserving and expanding the area of native vegetation (especially tree cover), we can  
20 *mitigate* the effects of climate change by maximizing the capacity of the land to take up and  
21 store atmospheric carbon in soils, trees, and other carbon sinks.

22 Densification of Arlington Forest would defeat the purpose. Constructing multifamily units  
23 would reduce open space and tree cover in our community, undermining our capacity to work  
24 with the county toward climate change adaptation and mitigation. Mitigation in particular  
25 requires carbon sequestration in Arlington’s trees and other carbon sinks. In 2019, trees stored  
26 over 180,000 metric tons of carbon in Arlington and took up another 8,700 metric tons annually.  
27 Loss of just 5 percent of Arlington’s tree cover would emit about 9,000 metric tons of carbon  
28 into the atmosphere, as much as 9,000 round-trip flights from New York to Paris.

29 Another component of climate change mitigation is sustainable consumption. By consuming vast  
30 quantities of coal, oil, and other fossil fuels, the United States contributes more per capita to  
31 atmospheric carbon than any other country. Arlington County can mitigate climate change by  
32 replacing fossil fuel consumption with green energy use. Accordingly, the county’s 2019  
33 Comprehensive Energy Plan set the goal of carbon neutrality (zero net carbon emissions) by  
34 2050 through changes in its energy grid, buildings, transportation, and renewable energy use.

35 Arlington Forest supports the county’s goal of carbon neutrality. We encourage residents in our  
36 neighborhood to work with AFCA, EcoAction Arlington, Tree Stewards, and other programs to  
37 sustain and expand our urban forest. We also commend the county for redeveloping the Lubber  
38 Run Community Center to achieve more energy efficiency, an example of using redevelopment  
39 projects for environmental benefits. The new building is rated Gold in the U.S. Green Building  
40 Council’s LEED (Leadership in Environmental and Energy Design) rating system. Carbon  
41 savings come from geothermal heating and energy-efficient LED lighting. The facility uses mass  
42 timber technologies to incorporate wood (a renewable resource) into its structure, thereby saving

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energy and storing carbon, including in lumber from trees removed from the site. In addition, the roof is set up for a solar array, which would optimize the building's energy performance in connection with its design.

Residences in Arlington, including the homes in Arlington Forest, account for over one-quarter of countywide energy use in buildings, and relatively few homes use green energy. Only 4 percent of the respondents to our neighborhood survey reported renewable energy use such as solar or geothermal on or in their homes. The county has an opportunity to improve outreach to Arlington Forest homeowners on the benefits of green energy. One way might be through financial incentives.

### ***Recommendation***

- ?

## **Emergency Response**

Historically, severe storms have been rare in northern Virginia. However, hurricanes and tropical storms have struck our area before, most recently in 2003 and again in 2011. In 2012, a line of fast-moving thunderstorms known as a derecho caused heavy wind damage to our area, and climate change has increased the likelihood of our area being hit by a catastrophic weather event. Moreover, 9/11 illustrated the risk of a political attack in the National Capital Area requiring a large-scale emergency response.

In 2017, Arlington County published an Emergency Operations Plan as part of its Comprehensive Emergency Management Program. Based on the National Interagency Management System first developed for wildland firefighting, the plan establishes a countywide framework for preparing for and responding to any large-scale emergency or disaster. The plan involves a Citizens Corps Council with opportunities for Arlington Forest and other neighborhoods to form Citizens Emergency Response Teams.

Like many counties around the country, Arlington has a system for issuing emergency notices to residents, called Arlington Alert. Residents can get training to help in an emergency by joining the Arlington Network for Community Readiness or by signing up for the Disaster Volunteer Registry. In addition, the county gives online information on making emergency preparedness kits and household evacuation plans for use in an emergency.

### ***Recommendation***

- ?

## **Pandemic Preparation**

Since the 1990s, the United States has prepared for epidemics through the work of the federal Centers for Disease Control and Prevention, the National Institutes of Health, and the U.S. Department of Health and Human Services. The United States responded to the global swine flu pandemic of 2009–10 with swift and effective testing and vaccination programs. International outbreaks of severe acute respiratory syndrome (2003–04), Middle East respiratory syndrome (2012–15), and the Ebola virus in West Africa (2014–16) were contained before cases reached



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the United States in large numbers, partly through international assistance from the United States.

Not so for the coronavirus disease of 2019, or COVID-19. Coronavirus transmissions began in December 2019 in Wuhan, China. In the United States, after—and likely even before—the first reported case on January 20, 2020, the disease rapidly spread nationwide. As of mid-July 2020, the United States had 3.3 million confirmed cases of COVID-19 and more than 135,000 fatalities. With less than 5 percent of the world’s population, the United States had about 25 percent of the world’s coronavirus cases and 24 percent of the fatalities. Economic activity plunged due to fear of contracting the disease as well as government lockdowns, with unemployment reaching levels not seen since the Great Depression. The partial success of springtime social-distancing measures notwithstanding, the pandemic and economic downturn persisted into summer with a surge in new cases, especially in southern and southwestern states. The average number of new cases nationwide rose from 20,000 per day in mid-June to 60,000 per day in mid-July.

In the spring, Arlington County suffered some of the highest rates of coronavirus transmission in Virginia. By mid-June, Arlington had recorded more than 2,300 cases (about 1 percent of the county’s population), including more than 120 fatalities. By then, COVID-19 had receded or disappeared in many other countries and economic activity was returning to normal. Successful responses to the pandemic, ranging from Canada and Germany to New Zealand and Taiwan, were predicated on strong and effective measures by central governments, including:

- a prompt and well-coordinated national response following expert guidance from healthcare professionals;
- early and ample stockpiling and efficient distribution of tests, hospital equipment, and personal protective equipment (such as masks and gloves); and
- effective programs for testing, tracing, and isolating infections as well as for quarantining and social distancing.

It worked. By mid-June, with a population half again as large as Arlington’s, Iceland had less than a tenth of Arlington’s fatalities; and Seoul (the capital of South Korea), with a population 40 times the size of Arlington’s, had half the number of confirmed coronavirus cases and only 5 percent of Arlington’s mortality rate. None of the successful approaches used by other countries extended to the United States, despite our nation’s enormous resources.

In the absence of effective national leadership, state and local governments cannot trust the federal government to lead any future pandemic response. In preparing for the future, Arlington County has an opportunity—indeed, an obligation—to learn from the past based on what worked in Canada, Europe, the Asia/Pacific region, and elsewhere around the world. The county has an opportunity to join with other counties in urging the state, in cooperation with other states, to make contingency plans for a future pandemic. Regional plans could include timely acquisition of sufficient tests in case of an epidemic outbreak; stockpiling and timely distribution of the equipment needed for an effective pandemic response; efficient systems for testing, tracing, and isolating infections; and effective policies for quarantining and social distancing, including lockdowns and sheltering in residence.

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Special vulnerabilities have lessons to teach: most springtime fatalities in Arlington were among the elderly residents of facilities for assisted living. The county should work with such facilities to reduce risks for their residents from future disease transmission, especially in a pandemic.

### **Recommendation**

- ?

## **CONCLUSION**

*To be drafted.*

### **Appendix A: Neighborhood Conservation Survey**

All households in Arlington Forest received hand-delivered notification in the neighborhood newsletter of a neighborhood conservation survey coming up in spring 2020 in connection with revising the 1991 Arlington Forest Neighborhood Conservation Plan. Notification of the survey appeared in the October and November 2019 issues of the neighborhood newsletter and again in the February and March 2020 issues. AFCA also publicized the neighborhood conservation survey on its website, and AFCA sent periodic email announcements and deadline reminders to Arlington Forest residents through the AFCA listserv.

A link to an 80-question online survey was published in the March 2020 newsletter and posted on the AFCA website. Neighbors who preferred a printed copy of the survey received hand-delivered copies, and all 38 nonresident Arlington Forest homeowners were sent letters to addresses supplied by the county real estate office so they could link to the survey.

The survey closed on May 1, 2020. A total of 187 households completed valid responses to the survey, whether online or in hardcopy. The 80-question survey is replicated below, along with the results. (Percentages might not add up to 100 due to rounding.)

#### **Section 1: Demographics**

1. Do you live in Arlington Forest?

Yes: 179 (97%)

No: 6 (3%)

No answer: 2 (1%)

2. What is your Arlington Forest address? (*Required*)

*Responses varied*

*If you do not live in Arlington Forest, please go to section 2.*

3. How many people live in your house?

*Responses varied*

4. Please indicate the number of people in your household in each of the following age categories:

17 or younger

18 to 24

25 to 34

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35 to 54

55 or older

*Responses varied*

5. Of those who live in your household:

a. How many work in the public sector (federal, state, or county government)?

b. How many work at home full time?

c. How many work at home sometimes?

d. How many are retired?

*Responses varied*

6. How many years have you lived or owned in Arlington Forest?

*Responses varied*

### **Section 2: Neighborhood Character and Identity**

7. What are the three things you value most about Arlington Forest?

*Responses varied*

8. What do you see as the biggest threats to the quality of life in Arlington Forest? Please provide up to three.

*Responses varied*

9. Should the following sites be considered historical and designated as such with markers?

- George Washington's survey marker at Long Branch and Four Mile Run

Yes: 134 (72%)

No: 3 (2%)

No opinion: 47 (25%)

No answer: 2 (1%)

- An old mill site on our local creeks

Yes: 106 (57%)

No: 10 (5%)

No opinion: 68 (36%)

No answer: 3 (2%)

- Historical farmhouses in Greenbrier near the Mary Carlin House

Yes: 114 (61%)

No: 8 (4%)

No opinion: 63 (34%)

No answer: 2 (1%)

- The Arlington Forest Shopping Center (Arlington Forest as a Historic District and the shopping center as a historic feature)

Yes: 98 (52%)

No: 46 (25%)

No opinion: 41 (22%)

No answer: 2 (1%)

- Arlington Forest Park (describing the park's unique oak-grassland ecosystem)

Yes: 123 (66%)

No: 22 (12%)

No opinion: 39 (21%)

No answer: 3 (2%)

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- The old-growth forest stand in Glencarlyn Park (never been logged)  
Yes: 128 (68%)  
No: 8 (4%)  
No opinion: 49 (26%)  
No answer: 1 (1%)
- Huffman's Falls on Four Mile Run (explaining the geology and the Civil War-era stonework)  
Yes: 113 (60%)  
No: 5 (43%)  
No opinion: 64 (34%)  
No answer: 5 (3%)

10. Are there any additional locations or stories that have historical or cultural significance in the neighborhood?  
*Responses varied*

### **Section 3: Housing**

11. Does your home have an addition?  
Yes: 137 (73%)  
No: 49 (26%)  
No response: 1 (1%)
12. Does your home have an accessory dwelling unit (a separate living unit with a kitchen and bath, either within your home or in a separate building on your property)?  
Yes: 3 (2%)  
No: 183 (98%)  
No response: 1 (1%)
13. Do you rent your home?  
Yes: 11 (6%)  
No: 176 (94%)
14. Do you plan to build an addition or another addition on your home? *[only those who answered "no" in question 13]*  
Yes: 20 (11%)  
No: 111 (63%)  
No opinion/don't know: 42 (24%)  
No answer: 3 (2%)
15. Do you plan to build an accessory dwelling unit on your property? *[only those who answered "no" in question 13]*  
Yes: 3 (2%)  
No: 147 (85%)  
No opinion/don't know: 24 (14%)  
No answer: 2 (1%)
16. Do you believe that Arlington Forest should remain primarily a neighborhood of single-family detached homes?  
Yes: 162 (87%)  
No: 12 (6%)

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No opinion: 12 (6%)

No response: 1 (1%)

### **Section 4: Sustainability**

17. Does your house have a source of renewable energy (such as passive solar, solar panels, or geothermal)?

Yes: 7 (4%)

No: 179 (96%)

No opinion: 1 (1%)

18. In the past year, have any large shade trees (such as an oak or maple) on your property died?

Yes: 38 (20%)

No: 147 (79%)

Don't know: 1 (1%)

No response: 1 (1%)

19. In the past 10 years, have you removed any large shade tree(s) (such as an oak or maple) on your property?

Yes: 92 (50%)

No: 94 (50%)

No response: 1 (1%)

*If you have not removed any large shade trees on your property in Arlington Forest, please skip to question 23.*

20. Why did you removed the tree or trees? (Check all that apply) *[only those who answered "yes" in question 18]*

The tree(s) died: 46 (50%)

The tree(s) got sick: 53 (58%)

Construction: 7 (8%)

The location of the tree(s) threatened structures: 19 (21%)

The tree(s) had undesirable characteristics (leaves, pollen, flowers, fruit, shape, scars, etc.): 1 (1%)

Other (please specify): 10 (11%)

21. Did you replace any of those trees? *[only those who answered "yes" in question 18]*

Yes: 47 (51%)

I plan to replace at least one tree: 23 (22%)

No: 26 (27%)

*If you replaced any large shade trees on your property in Arlington Forest, please skip to question 23.*

22. Please indicate the reason or reasons why you did not replace the tree or trees (check all that apply) *[only those who answered "no" in question 21]*

The tree might fall and hurt someone or damage something: 3 (12%)

The tree would block out too much sun: 4 (16%)

The tree would be too much trouble to care for: 1 (4%)

The tree would be too expensive to care for: 0 (0%)

The tree would be too expensive to plant: 3 (12%)

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- 1           The tree died too recently to replace: 3 (12%)
- 2   23.    In the past 10 years, have any of your neighbors removed large shade tree(s) (such as an  
3           oak or maple) on their property?  
4           Yes: 138 (74%)  
5           No: 19 (10%)  
6           Don't know: 28 (15%)  
7           No response: 2 (1%)
- 8   *If none of your neighbors in Arlington Forest removed a large shade tree in the past 10 years or*  
9   *if you don't know, please skip to question 26.*
- 10   24.   Why did they remove any tree or trees? (Check all that apply) *[only those who answered*  
11           *"yes" in question 23]*  
12           The tree(s) died: 58 (63%)  
13           The tree(s) got sick: 58 (63%)  
14           Construction: 36 (39%)  
15           The location of the tree(s) threatened structures: 12 (13%)  
16           The tree(s) had undesirable characteristics (leaves, pollen, flowers, fruit, shape, scars,  
17           etc.): 10 (11%)  
18           Don't know: 39 (42%)  
19           Other (please specify): 12 (13%)
- 20   25.   Did your neighbors replace any tree(s)? *[only those who answered "yes" in question 23]*  
21           Yes: 13 (9%)  
22           My neighbor plans to replace the tree(s): 7 (5%)  
23           No: 82 (59%)  
24           Don't know: 36 (26%)
- 25   26.   The Arlington Forest Civic Association makes matching grants to residents of Arlington  
26           Forest to pay for a shade tree on their property. If you qualified for this grant, would you  
27           plant a shade tree on your property?  
28           Yes: 94 (50%)  
29           No: 25 (13%)  
30           No opinion: 67 (36%)  
31           No response: 1 (1%)
- 32   27.   Arlington County has a tree fund administered by EcoAction Arlington. EcoAction  
33           Arlington provides you with a native canopy tree and plants it for you. If you qualified  
34           for this grant, would you plant a shade tree on your property?  
35           Yes: 101 (54%)  
36           No: 25 (13%)  
37           No opinion: 60 (32%)  
38           No answer: 1 (1%)
- 39   28.   In the last 10 years, have you seen street trees on county land that have been removed and  
40           not replaced?  
41           No: 150 (80%)  
42           Yes: 28 (15%)           Please specify where: *Responses varied*  
43           Don't know: 1 (1%)  
44           No answer: 8 (4%)

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29. Should the county widen the service road parallel to Arlington Boulevard on Northside east of the shopping center and install curbs so residents can park on asphalt, protecting the buffer strip and the trees growing there? (The county has done the same thing on the Southside service road, and residents no longer park on the buffer strip there.)  
Yes: 99 (53%)  
No: 29 (16%)  
No opinion: 59 (32%)
30. Do storm drains on your street back up during heavy rainfall/snowmelt?  
No: 107 (57%)  
Don't know: 49 (26%)  
Yes: 29 (16%) Please specify where: *Responses varied*  
No response: 2 (1%)
31. Does water pool on streets or sidewalks in your neighborhood?  
No: 102 (55%)  
Don't know: 29 (16%)  
Yes: 56 (30%) Please specify where: *Responses varied*
32. Do you have any stormwater management features (such as rain collection, pervious pavers, or a rain garden) on your property?  
Yes: 59 (32%)  
No: 119 (64%)  
Don't know: 9 (5%)
33. Are you aware of the incentives the county offers to add stormwater mitigation feature(s) to your property?  
Yes: 28 (15%)  
No: 159 (85%)
- If you were not aware of county incentives to add stormwater mitigation features to your property, please skip to question 36.*
34. Have you taken advantage of any of the incentives the county offers to add stormwater mitigation feature(s) to your property? *[only those who answered "yes" in question 33]*  
Yes: 5 (18%)  
No: 23 (82%)
35. Why not? *[only those who answered "yes" in question 33]*  
Mitigation costs are too high even with the incentives offered: 3 (13%)  
I applied but my application was not accepted by the county: 2 (9%)  
I am not interested in this program: 3 (13%)  
Other: 13 (57%) Please describe: *Responses varied*  
No response: 2 (9%)
36. Should the county restore the streambeds in our neighborhood parks to help prevent flood damage from stormwater runoff and improve habitat for fish and other aquatic life?  
Yes: 163 (87%)  
No: 3 (2%)  
No opinion: 20 (11%)  
No response: 1 (1%)



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## **Section 5: Neighborhood Amenities**

37. Does the Arlington Forest shopping center meet the needs of the community?

Yes: 95 (51%)

No: 88 (47%) Please explain: *Responses varied*

No opinion: 1 (1%)

No response: 3 (2%)

38. Please indicate your extent of agreement with the following statements about the Arlington Forest Shopping Center. *[Nonresponses not counted.]*

<b>Statement</b>	<b>Agree</b>	<b>Disagree</b>	<b>No opinion</b>
The shopping center should stay as it is.	104 (56%)	36 (20%)	45 (24%)
It's okay to increase the size of the shopping center by building it out.	42 (23%)	116 (63%)	27 (14%)
It's okay to increase the size of the shopping center by building it up.	51 (28%)	102 (55%)	33 (17%)
Building apartments atop the shopping center is a good idea.	29 (16%)	134 (72%)	24 (13%)
Building offices atop the shopping center is a good idea.	21 (11%)	139 (74%)	27 (14%)

## **Section 6: Public Safety**

39. Is crime a problem on your street in Arlington Forest?

Yes: 14 (8%)

No: 171 (91%)

No response: 2 (1%)

40. Is crime a problem anywhere in Arlington Forest?

No: 144 (77%)

Yes: 38 (20%) Please specify where: *Responses varied*

Don't know: 1 (1%)

No response: 4 (2%)

41. What county actions would you suggest to reduce crime and improve safety?

*Responses varied*

## **Section 7: Parks and Recreation**

42. Please indicate how frequently you use these parks and recreation areas around Arlington Forest. *[Nonresponses not counted.]*

<b>Park/Recreation Facility</b>	<b>Often</b>	<b>Occasionally</b>	<b>Never</b>
Glencarlyn Park	61 (34%)	85 (47%)	36 (20%)
Bluemont Park	55 (30%)	106 (58%)	21 (12%)
The W&OD Trail	117 (63%)	58 (31%)	10 (5%)
Lubber Run Park	133 (73%)	47 (26%)	3 (2%)
Lubber Run Amphitheater	72 (39%)	96 (53%)	15 (8%)
Lubber Run Community Center (prior to renovation)	32 (18%)	89 (49%)	62 (34%)
Edison Park	34 (19%)	82 (45%)	67 (37%)

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<b>Park/Recreation Facility</b>	<b>Often</b>	<b>Occasionally</b>	<b>Never</b>
Long Branch Nature Center	25 (14%)	111 (61%)	46 (25%)
Glencarlyn Dog Park	23 (13%)	33 (18%)	124 (69%)

43. Would you like to see another dog park in Arlington Forest or nearby?  
 No: 137 (73%)  
 Yes: 37 (20%) Please specify where you would put it: *Responses varied*  
 No response: 13 (7%)

44–48. Please indicate which of the following you believe is a threat to the health, beauty, and enjoyment of our parks and recreation areas. [*Nonresponses not counted.*]

<b>Threat</b>	<b>To the Health</b>	<b>To the Beauty</b>	<b>To User Enjoyment</b>
Erosion from stormwater runoff	116 (62%)	121 (65%)	127 (68%)
Flood-related damage	105 (56%)	122 (65%)	142 (76%)
Delays in replacing bridges	60 (32%)	76 (41%)	166 (89%)
Drought	109 (58%)	117 (63%)	87 (47%)
Forest fire	116 (62%)	95 (51%)	97 (52%)
Tree loss	140 (75%)	165 (88%)	137 (73%)
Air pollution	147 (79%)	78 (42%)	113 (60%)
Water pollution	159 (85%)	94 (50%)	120 (64%)
Decreasing biodiversity	138 (74%)	116 (62%)	108 (58%)
Changing climate/unusual weather patterns	145 (76%)	113 (60%)	128 (68%)
Invasive species	120 (64%)	124 (66%)	100 (54%)
Improper disposal of garbage	151 (81%)	138 (74%)	129 (69%)
Noise	73 (39%)	52 (28%)	137 (73%)
Deer damage to plants	64 (34%)	101 (54%)	57 (31%)
User conflicts (such as pedestrians/bikers/sports players)	53 (28%)	15 (8%)	126 (67%)
Pets off leash	81 (43%)	23 (12%)	116 (62%)
Pet feces not picked up	151 (81%)	120 (64%)	145 (78%)
Vandalism	63 (34%)	123 (66%)	126 (67%)
Crime	96 (51%)	71 (38%)	129 (69%)

### **Section 8: Transportation**

49. How frequently do you use Metro Train as a means of transportation?  
 Regularly: 47 (25%)  
 Occasionally: 84 (45%)  
 Rarely: 42 (23%)  
 Never: 8 (4%)  
 No response: 6 (3%)

*If you use Metro Trains regularly, occasionally, or rarely, please answer question 49a and skip to question 50.*

*If you never use Metro Trains as a means of transportation, please answer question 49b.*

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49a. What improvements could the county make to encourage others to ride Metro Trains?

*Responses varied*

49b. Please share any thoughts or comments you have on Metro Train as a means of transportation.

*Responses varied*

50. How frequently do you use Metrobus as a means of transportation?

Regularly: 21 (11%)

Occasionally: 55 (29%)

Rarely: 51 (27%)

Never: 53 (28%)

No response: 7 (4%)

*If you use Metrobus regularly, occasionally, or rarely, please answer question 50a and skip to question 51.*

*If you never use Metrobus as a means of transportation, please answer question 50b.*

50a. What improvements could the county make to encourage others to ride Metrobus?

*Responses varied*

50b. Please share any thoughts or comments you have on Metrobus as a means of transportation.

*Responses varied*

51. How frequently do you use ART buses as a means of transportation?

Regularly: 3 (2%)

Occasionally: 23 (12%)

Rarely: 56 (30%)

Never: 93 (50%)

No response: 12 (6%)

*If you use ART buses regularly, occasionally, or rarely, please answer question 51a and skip to question 52.*

*If you never ride ART buses as a means of transportation, please answer question 51b.*

51a. What improvements could the county make to encourage others to ride ART buses?

*Responses varied*

51b. Please share any thoughts or comments you have on ART buses as a means of transportation.

*Responses varied*

52. How frequently do you use a bicycle as a means of transportation?

Regularly: 41 (22%)

Occasionally: 63 (34%)

Rarely: 30 (16%)

Never: 44 (24%)

No response: 9 (5%)

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*If you use a bicycle regularly, occasionally, or rarely, please answer question 52a and skip to question 53.*

*If you never use a bicycle as a means of transportation, please answer question 52b.*

52a. What improvements could the county make to encourage others to ride bicycles?

*Responses varied*

52b. Please share any thoughts or comments you have on bicycles as a means of transportation.

*Responses varied*

53. How frequently do you use e-bikes as a means of transportation?

Regularly: 0 (0%)

Occasionally: 6 (3%)

Rarely: 14 (8%)

Never: 156 (83%)

No response: 12 (6%)

*If you use e-bikes regularly, occasionally, or rarely, please answer question 53a and skip to question 54.*

*If you never use e-bikes as a means of transportation, please answer question 53b.*

53a. What improvements could the county make to encourage others to ride e-bikes?

*Responses varied*

53b. Please share any thoughts or comments you have on e-bikes as a means of transportation.

*Responses varied*

54. How frequently do you use motorized scooters as a means of transportation?

Regularly: 2 (1%)

Occasionally: 5 (3%)

Rarely: 21 (11%)

Never: 145 (78%)

No response: 14 (8%)

*If you use motorized scooters regularly, occasionally, or rarely, please answer question 54a and skip to question 55.*

*If you never use a motorized scooter as a means of transportation, please answer question 54b.*

54a. What improvements could the county make to encourage others to ride motorized scooters?

*Responses varied*

54b. Please share any thoughts or comments you have on motorized scooters as a means of transportation.

*Responses varied*

55. How frequently do you walk as a means of transportation?

Regularly: 156 (83%)

Occasionally: 24 (13%)

Rarely: 2 (1%)

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Never: 1 (1%)

No response: 4 (2%)

*If you walk regularly, occasionally, or rarely, please answer question 54a and skip to question 56.*

*If you never walk as a means of transportation, please answer question 55b.*

55a. What improvements could the county make to encourage others to walk?

*Responses varied*

55b. Please share any thoughts or comments you have on walking as a means of transportation.

*Responses varied*

### **Section 8: Traffic Management**

56. Is through traffic a problem on other streets in Arlington Forest?

No: 82 (44%)

Yes: 90 (48%) Please specify where: *Responses varied*

No response: 15 (8%)

57. Is through traffic a problem on your street?

Yes: 60 (32%)

No: 122 (65%)

No response: 5 (3%)

58. Is speeding a problem on your street?

Yes: 92 (50%)

No: 92 (50%)

No response: 3 (2%)

59. Is speeding a problem on other streets in Arlington Forest?

No: 60 (32%)

Yes: 102 (55%) Please specify where: *Responses varied*

No response: 25 (13%)

60. Should the county install a traffic light at Carlin Springs Road and North Edison Street?

Yes: 75 (40%)

No: 32 (17%)

No opinion: 80 (43%)

61. Please explain.

*Responses varied*

62. Should the county install a traffic light at Carlin Springs Road and North Harrison Street?

Yes: 39 (21%)

No: 36 (19%)

No opinion: 111 (59%)

No response: 1 (1%)

63. Please explain.

*Responses varied*

64. Should the county install a traffic light at North Park Drive and George Mason Drive?

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- 1 Yes: 111 (59%)  
2 No: 20 (11%)  
3 No opinion: 52 (28%)  
4 No response: 4 (2%)
- 5 65. Please explain  
6 *Responses varied*
- 7 66. Are there intersections in Arlington Forest where you believe the county should construct  
8 traffic circles to calm traffic?  
9 No: 139 (74%)  
10 Yes: 25 (13%) Please specify where: *Responses varied*  
11 No response: 23 (12%)
- 12 67. Have you noticed any other traffic hazards or bottlenecks in Arlington Forest?  
13 No: 76 (41%)  
14 No opinion: 48 (26%)  
15 Yes: 53 (28%) Please specify where: *Responses varied*  
16 No response: 10 (5%)
- 17 68. Are there any other measures that the county should consider to improve traffic safety in  
18 Arlington Forest?  
19 No: 94 (50%)  
20 Yes: 55 (30%) Please specify where: *Responses varied*  
21 No response: 38 (20%)
- 22 69. Do you regularly have problems parking on your street?  
23 Yes: 10 (5%)  
24 No: 176 (94%)  
25 No response: 1 (1%)
- 26 *If you do not regularly have problems parking on your street, please go to question 74.*
- 27 70. Would posted 4-hour parking zones to dissuade commuter parking solve the problem?  
28 *[only those who answered “yes” in question 69]*  
29 Yes: 7 (70%)  
30 No: 3 (30%)
- 31 71. Would posted permit parking zones from 8 p.m. to 8 a.m. (may require paying a  
32 homeowner fee) solve the problem? *[only those who answered “yes” in question 69]*  
33 Yes: 4 (40%)  
34 No: 3 (30%)  
35 No opinion: 3 (30%)
- 36 72. Would it solve the problem for the county to require that new multifamily residential  
37 developments within three blocks of Arlington Forest accommodate resident parking  
38 onsite? *[only those who answered “yes” in question 69]*  
39 Yes: 6 (60%)  
40 No: 1 (10%)  
41 No opinion: 2 (20%)  
42 No response: 1 (10%)
- 43 73. Do you have any other suggestions for solving parking problems on your street?

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*Responses varied*

74. Is street parking an issue in other parts of Arlington Forest?

Yes: 34 (18%)

No: 29 (16%)

Don't know: 107 (57%)

No response: 17 (9%)

*If street parking is not an issue in other parts of Arlington Forest, please go to section 9.*

75. Would posted 4-hour parking zones to dissuade commuter parking solve the problem?

*[only those who answered "yes" in question 74]*

Yes: 14 (41%)

No: 5 (15%)

No opinion: 15 (44%)

76. Would posted permit parking zones from 8 p.m. to 8 a.m. (may require paying a homeowner fee) solve the problem? *[only those who answered "yes" in question 74]*

Yes: 8 (24%)

No: 6 (18%)

No opinion: 19 (56%)

No response: 1 (3%)

77. Would it solve the problem for the county to require new multifamily residential developments within three blocks of Arlington Forest to accommodate resident parking onsite? *[only those who answered "yes" in question 74]*

Yes: 28 (85%)

No: 0 (0%)

Don't know: 5 (15%)

No response: 1 (3%)

78. Do you have any other suggestions for solving parking problems in Arlington Forest?

*Responses varied*

### **Section 9: County Services**

79. Please indicate your satisfaction with each of the following county services.

<b>Service</b>	<b>Satisfied</b>	<b>Neutral</b>	<b>Dissatisfied</b>	<b>No Response</b>
Animal control	89 (48%)	76 (41%)	14 (8%)	8 (4%)
Fire/ambulance	132 (71%)	49 (26%)	0 (0%)	6 (3%)
Hazardous waste disposal	105 (56%)	61 (33%)	12 (6%)	9 (5%)
Leaf collection	145 (78%)	26 (14%)	12 (6%)	4 (2%)
Libraries	160 (86%)	16 (9%)	4 (2%)	7 (4%)
Park maintenance	88 (47%)	54 (29%)	40 (21%)	5 (3%)
Police	133 (71%)	46 (25%)	2 (1%)	6 (3%)
Public schools	113 (60%)	51 (27%)	13 (7%)	10 (5%)
Snow removal	111 (59%)	57 (31%)	14 (8%)	5 (3%)
Social services	67 (36%)	103 (55%)	5 (3%)	12 (6%)
Street cleaning	116 (62%)	55 (29%)	9 (5%)	7 (4%)



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Street/sidewalk maintenance	88 (47%)	65 (35%)	29 (16%)	5 (3%)
Street light maintenance	93 (50%)	69 (37%)	20 (11%)	5 (3%)
Trash pickup	163 (87%)	15 (8%)	6 (3%)	3 (2%)
Curbside recycling	143 (77%)	19 (10%)	22 (12%)	3 (2%)
Water/sewer service	137 (73%)	39 (21%)	6 (3%)	5 (3%)

80. Could county services be improved?

No: 25 (13%)

No opinion: 84 (45%)

Yes: 70 (37%) Please explain. *Responses varied*

No response: 8 (4%)

### ***Appendix B: Neighborhood Demographics***

According to our **2020 neighborhood survey**, the average household size in Arlington Forest was 2.9. Among respondents, the age distribution was:

- under 18 years .....25.3%
- 18 to 24 years .....8.8%
- 25 to 34 years .....5.1%
- 35 to 54 years .....31.2%
- over 54 years .....29.6%

Among respondents, the average length of time lived and/or homeownership in Arlington Forest was 20.9 years. The homeownership distribution by longevity was:

- under 6 years .....13.4%
- 6 to 15 years .....22.5%
- 16 to 25 years .....33.7%
- 26 to 35 years .....15.0%
- over 35 years .....15.5%

Among the respondents, at least one person worked in the public sector (federal, state, or local government) in 54.3 percent of the households, at least one person worked at home full time in 37.4 percent and part time in 83.1 percent, and at least one person was retired in 45.0 percent.

According to the **2010 national census**, the total population of Arlington Forest was 2,223. The age distribution was:

- under 18 years .....25.6%
- 18 to 24 years .....5.4%
- 25 to 34 years .....12.5%
- 35 to 44 years .....19.6%
- 45 to 54 years .....14.5%
- over 54 years .....22.5%

The racial makeup of the residents was:

- white alone .....82.3%

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- Hispanic or Latino.....7.3%
- black or African-American alone.....1.7%
- American Indian or Alaska Native alone.....0.1%
- Asian alone.....4.7%
- Native Hawaiian or Pacific Islander alone.....0.4%
- some other race alone.....0.1%
- two or more races.....3.4%

The housing units in Arlington Forest are all one-story or two-story single-family homes. Of the 852 houses in Arlington Forest in 2010, 701 (82.3 percent) were occupied by owners, 133 (15.6 percent) were occupied by renters, and 18 (2.1 percent) were vacant. Of the 834 houses occupied by owners and renters, the household types were:

- husband/wife family.....61.3%
- other family .....7.2%
- householder living alone .....20.7%
- householder not living alone .....10.8%

The number of people per household was:

- 1 person .....20.7%
- 2 people.....31.7%
- 3 people.....19.4%
- 4 people.....21.1%
- 5 people or more .....7.0%

According to the U.S. Census Bureau, the median annual household income for Arlington County in 2014–18 was \$117,374 (in 2018 dollars). Reliable statistics for Arlington Forest were not found.

### ***Appendix C: Summary of Recommendations/Implementation Strategies***

*To be drafted.*

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