

**FAIRFAX COUNTY
BOARD OF SUPERVISORS
March 5, 2019**

AGENDA

8:30 Reception for Developmental Disability Inclusion Month and Welcoming Inclusion Network Proclamations, J. Lambert Conference Center Reception Area

9:30 [Presentations](#)

10:00 [Report on General Assembly Activities](#)

10:10 [Items Presented by the County Executive](#)

**ADMINISTRATIVE
ITEMS**

1 [Approval of Traffic Calming Measures as Part of the Residential Traffic Administration Program \(Mason and Mount Vernon Districts\)](#)

2 [Authorization to Advertise a Public Hearing to Establish Parking Restrictions on Huntsman Court \(Springfield District\)](#)

3 [Authorization to Advertise a Public Hearing to Consider an Ordinance to Amend and Readopt Section 67.1-10-2 of the Fairfax County Code Relating to Sewer Service Charges, Base Charges, Availability Charges, Fixture Unit Charges, Introducing Charges for Hauled Wastewater and to Amend and Readopt Section 68.1-9-1. C.2 Relating to License Fees for Sewage Handlers](#)

4 [Authorization to Advertise a Public Hearing to Consider Adopting an Ordinance to Establish Economic Revitalization and Redevelopment Zones \(Dranesville, Hunter Mill, Lee, Mason and Mount Vernon Districts\)](#)

5 [Extension of Review Period for 2232 Applications \(Mount Vernon, Providence, and Sully Districts\)](#)

6 [Authorization to Advertise a Public Hearing on a Proposal to Abandon and Convey Part of Carolina Place \(Mason District\)](#)

7 [Authorization to Advertise a Public Hearing to Amend Appendix I of the Code of the County of Fairfax Re: Fairfax County Special Service District for the Control of Infestations of Insects that May Carry a Disease that is Dangerous to Humans, Gypsy Moths, Cankerworms and Certain Identified Pests – Allow Use of Service District Funds to Remediate Damage Cause by Forest Pests](#)

**FAIRFAX COUNTY
BOARD OF SUPERVISORS
March 5, 2019**

**ADMINISTRATIVE
ITEMS
(Continued)**

- 8 Supplemental Appropriation Resolution AS 19204 for the Department of Family Services to Accept Grant Funding from the Virginia Early Childhood Foundation, Preschool Development Grant Birth-Five Pilot Initiative
- 9 Authorization to Advertise Publication of the FY 2020 Budget and Required Tax Rates, the FY 2020 Effective Tax Rate Increase, and the Advertised Capital Improvement Program for Fiscal Years 2020-2024 (With Future Fiscal Years to 2029)

ACTION ITEMS

- 1 Approval of the Disease Carrying Insects Program
- 2 Approval of a Resolution Endorsing Route 50 Improvements for Highway Infrastructure Program (HIP) Funding Consideration (Sully District)
- 3 Approval of the Calendar Year 2019 Forest Pest Management Program
- 10:20 Matters Presented by Board Members
- 11:10 Closed Session

**PUBLIC
HEARINGS**

- 3:30 **To be deferred to 3/19/19 at 3:00 p.m.** Public Hearing on SE 2018-SU-016 (LB Franklin Farm LLC) (Sully District)
- 3:30 **To be deferred to 3/19/19 at 3:00 p.m.** Public Hearing on PCA 2013-MV-001/CDPA 2013-MV-001 (Wesley Huntington Landlord, LLC) (Mount Vernon District)
- 3:30 **To be deferred to 3/19/19 at 3:00 p.m.** Public Hearing on PCA 84-C-048 (Prince Towne, LLC) (Hunter Mill District)

**FAIRFAX COUNTY
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March 5, 2019**

**PUBLIC
HEARINGS
(Continued)**

3:30		Public Hearing on RZ 2016-DR-027 (Pomeroy/Clark I, LLC) (Dranesville District)
3:30		Public Hearing on PCA-C-637-4 (Pomeroy/Clark I, LLC) (Dranesville District)
3:30		Public Hearing on RZ 2017-DR-012 (Pomeroy Companies, Inc/Pomeroy Investments, Inc., TR) (Dranesville District)
3:30		Public Hearing on PCA-C-637-05 (Pomeroy Investments Inc., TR) (Dranesville District)
4:00		Public Hearing on SE 2018-LE-009 (Bila Mawardi Hamdael/Bila's Child Care) (Lee District)
4:00		Public Hearing to Consider Adopting an Ordinance Expanding the Springdale Residential Permit Parking District, District 33 (Mason District)
4:00		Public Hearing for the Conveyance of a Portion of County- Owned Property to the City of Manassas Park, Virginia
4:00		Public Hearing to Sell Board-Owned Property South of Spring Hill Road to Dominion Energy for an Electric Substation (Hunter Mill District)
4:30	To be deferred to 3/19/19 at 3:00 p.m.	Public Hearing on RZ 2018-SU-023 (Pohanka Virginia Properties, LLC) (Sully District)
4:30	To be deferred to 3/19/19 at 3:00 p.m.	Public Hearing on SEA 94-Y-023 (Pohanka Virginia Properties, LLC) (Sully District)
4:30		Public Hearing on SE 2018-MA-008 (Trustees of Lincolnia United Methodist Church and Flor. D. Brea D/B/A Luca's Rainbow Bilingual Daycare Center) (Mason District)
4:30		Public Hearing on a Proposed Zoning Ordinance Amendment Re: Article 6 – Density Provisions for the Reston PRC District



Fairfax County, Virginia

BOARD OF SUPERVISORS

AGENDA

Tuesday
March 5, 2019

9:30 a.m.

RECOGNITIONS

- RESOLUTION — To recognize Richard Bierce for his years of service to Fairfax County. Requested by Supervisor Storck.
- CERTIFICATE — To recognize the three winning teams, judges and mentors who participated in the Housing Hackathon held on January 24-25, 2019. Requested by Chairman Bulova and Supervisors McKay, Foust, Hudgins and Storck.
- CERTIFICATE — To recognize the Welcoming Inclusion Network for its work to advance employment and day services for individuals with developmental and intellectual disabilities. Requested by Supervisor Cook.

DESIGNATIONS

- PROCLAMATION — To designate March 2019 as Developmental Disabilities Inclusion Month in Fairfax County. Requested by Chairman Bulova.
- PROCLAMATION — To designate March 2019 as Women's History Month in Fairfax County. Requested by Chairman Bulova.

STAFF:

Tony Castrilli, Director, Office of Public Affairs
Bill Miller, Office of Public Affairs
Austin Hendrick, Office of Public Affairs

Board Agenda Item
March 5, 2019

10:00 a.m.

Report on General Assembly Activities

ENCLOSED DOCUMENTS:

None. Materials to be distributed to the Board of Supervisors on March 5, 2019, and printed copy available for review in the Office of the Clerk to the Board.

PRESENTED BY:

Supervisor Jeff McKay, Chairman, Board of Supervisors' Legislative Committee
Bryan J. Hill, County Executive

Board Agenda Item
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10:10 a.m.

Items Presented by the County Executive

Board Agenda Item
March 5, 2019

ADMINISTRATIVE - 1

Approval of Traffic Calming Measures as Part of the Residential Traffic Administration Program (Mason and Mount Vernon Districts)

ISSUE:

Board endorsement of Traffic Calming measures as part of the Residential Traffic Administration Program (RTAP).

RECOMMENDATION:

The County Executive recommends that the Board endorse the traffic calming plans for Philip Road (Attachment I) and Camden Street (Attachment II), consisting of the following:

- One speed hump on Philip Road (Mason District)
- One speed hump on Camden Street (Mount Vernon District)

In addition, the County Executive recommends that the Fairfax County Department of Transportation (FCDOT) be requested to schedule the installation of the approved traffic calming measures as soon as possible.

TIMING:

Board action is requested on March 5, 2019.

BACKGROUND:

As part of RTAP, roads are reviewed for traffic calming when requested by a Board member on behalf of a homeowners or civic association. Traffic calming employs the use of physical devices such as speed humps, speed tables, raised pedestrian crosswalks, chokers, median islands, or traffic circles to reduce the speed of traffic on a residential street. Staff performed engineering studies documenting the attainment of qualifying criteria. Staff worked with the local Supervisor's office and community to determine the viability of the requested traffic calming measure to reduce the speed of traffic. Once the plan for the road under review is approved and adopted by staff, that plan is then submitted for approval to the residents within the ballot area in the adjacent community. On January 18, 2019, FCDOT received verification from the Mason District Supervisor's office confirming community support for the Philip Road traffic calming plan. On December 28, 2018, FCDOT received verification from the Mount Vernon

Board Agenda Item
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District Supervisor's office confirming community support for the Camden Street traffic calming plan.

FISCAL IMPACT:

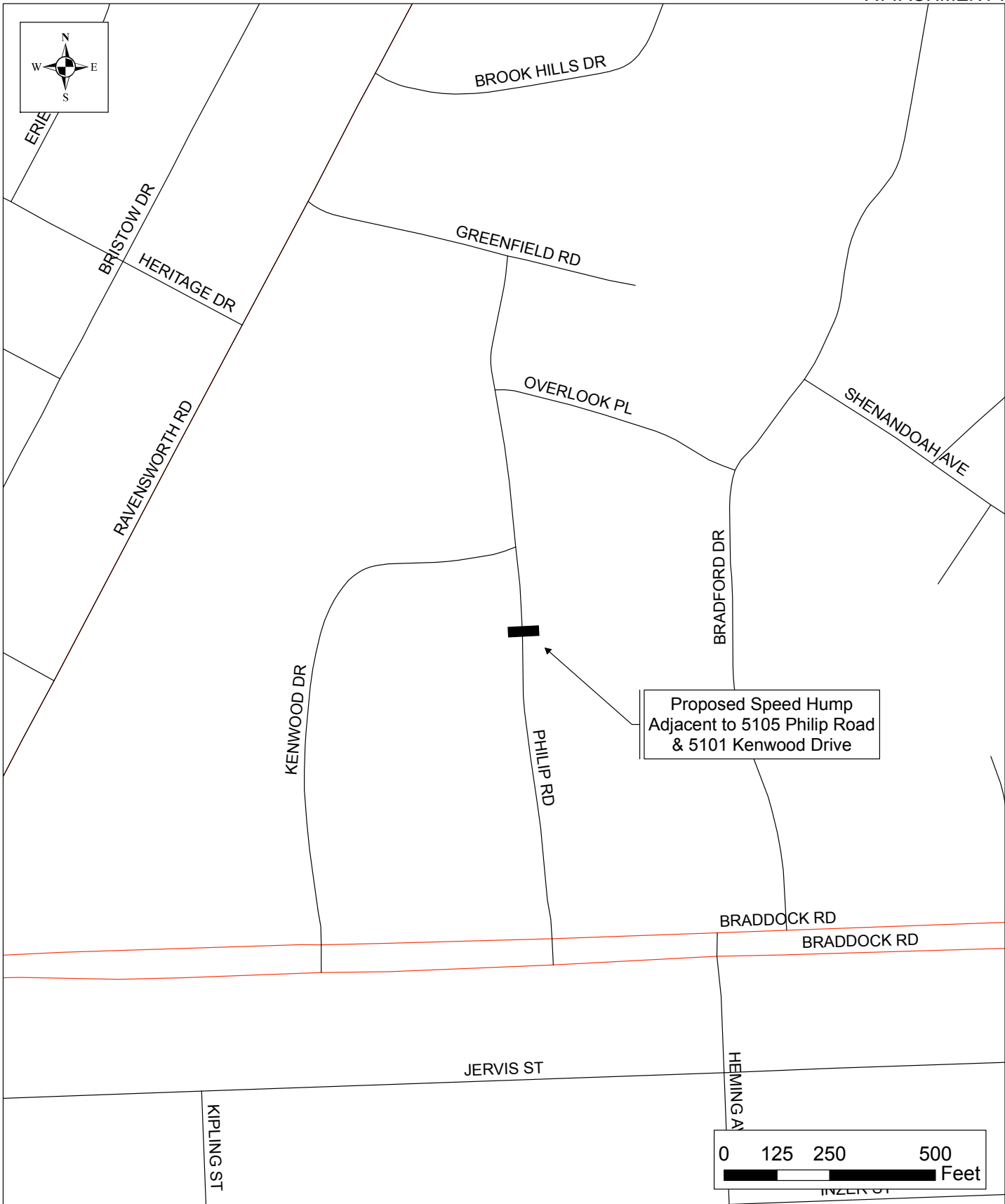
Funding in the amount of \$17,000 for the traffic calming measures associated with the Philip Road project is available in Fund 2G25-076-000, General Fund, under Job Number 40TTCP.

ENCLOSED DOCUMENTS:

Attachment I: Traffic Calming Plan for Philip Road
Attachment II: Traffic Calming Plan for Camden Street

STAFF:

Rachel Flynn, Deputy County Executive
Tom Biesiadny, Director, Fairfax County Department of Transportation (FCDOT)
Eric Teitelman, Chief, Capital Projects and Traffic Engineering Division, FCDOT
Neil Freschman, Chief, Traffic Engineering Section, FCDOT
Steven K. Knudsen, Transportation Planner, Traffic Engineering Section, FCDOT
David Loss, Transportation Planner, Traffic Engineering Section, FCDOT



January 2019

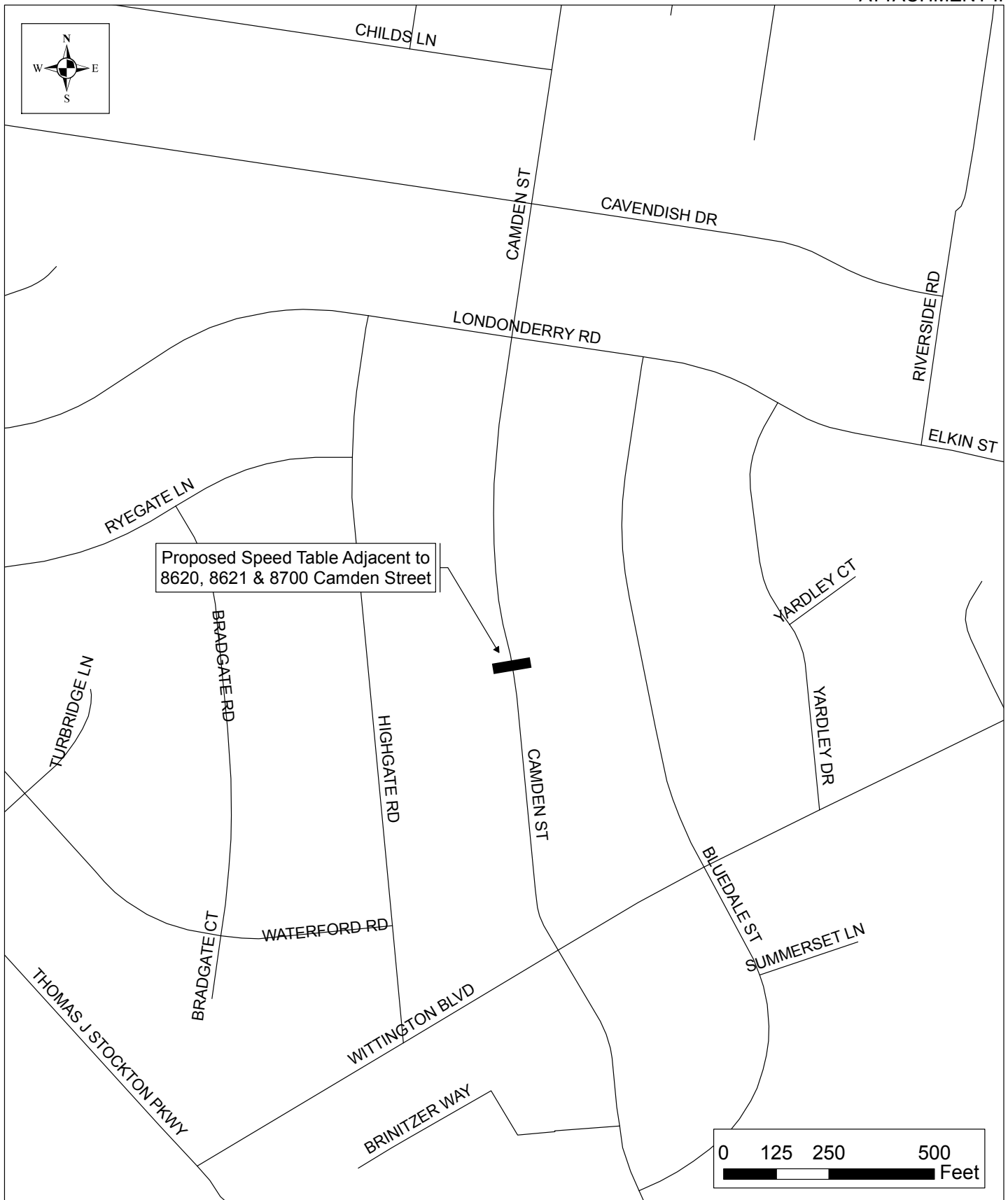


A Fairfax Co. Va., publication

Fairfax County Department of Transportation
Residential Traffic Administration Program (RTAP)
TRAFFIC CALMING PLAN
PHILIP ROAD
Mason District



Tax Map: 71-3



January 2019



A Fairfax Co. Va., publication

Fairfax County Department of Transportation
Residential Traffic Administration Program (RTAP)
TRAFFIC CALMING PLAN
CAMDEN STREET
Mount Vernon District



Tax Map: 102-3, 111-1

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ADMINISTRATIVE - 2

Authorization to Advertise a Public Hearing to Establish Parking Restrictions on
Huntsman Court (Springfield District)

ISSUE:

Board authorization to advertise a public hearing to consider a proposed amendment to Appendix R of *The Code of the County of Fairfax, Virginia* (Fairfax County Code), to establish parking restrictions on Huntsman Court in the Springfield District.

RECOMMENDATION:

The County Executive recommends that the Board authorize advertisement of a public hearing for April 9, 2019, at 3:00 p.m. to consider adoption of a Fairfax County Code amendment (Attachment I) to Appendix R to prohibit commercial vehicles, recreational vehicles and trailers as defined, respectively, in Fairfax County Code §§ 82-5-7, 82-5B-1, and 82-1-2(a)(50), from parking on the west side of Huntsman Court.

TIMING:

The Board of Supervisors should act on March 5, 2019, to provide sufficient time for advertisement of the public hearing on April 9, 2019, at 3:00 p.m.

BACKGROUND:

Fairfax County Code Section 82-5-37(4) authorizes the Board of Supervisors to designate restricted parking, in the case of any street which serves as a boundary between an area zoned for residential use and an area zoned for nonresidential use on which parking is restricted on the residential side of that street, on a nonresidential side of the street where it would further the residential character of the abutting residential community, would facilitate the free and unrestricted vehicular travel along that street, and would promote the health, safety, and general welfare of the abutting residential community.

The board representative of the Lake Forest Community Association, in coordination with KeyPoint Partners, property manager on behalf of Huntsman Square Shopping Center, contacted the Springfield District office seeking assistance to restrict commercial vehicles, recreational vehicles and trailers from parking on the west side of Huntsman Court adjacent to the residential community.

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In 2010, the Board of Supervisors approved the Springfield District Large Area Community Parking District (CPD). As a result, recreational vehicles and all trailers are prohibited from parking in areas zoned residential throughout the district. In keeping with the residential character that is present on the residential portion of Huntsman Court, staff is recommending a parking restriction for all commercial vehicles, recreational vehicles, and trailers on the west side of Huntsman Court along the commercially zoned area that is across from residentially zoned areas.

FISCAL IMPACT:

The cost of sign installation is estimated to be \$600. It will be paid from Fairfax County Department of Transportation funds.

ENCLOSED DOCUMENTS:

Attachment I: Amendment to the Fairfax County Code, Appendix R (General Parking Restrictions)

Attachment II: Area Map of Proposed Parking Restriction

STAFF:

Rachel Flynn, Deputy County Executive

Tom Biesiadny, Director, Fairfax County Department of Transportation (FCDOT)

Eric Teitelman, Chief, Capital Projects and Traffic Engineering Division, FCDOT

Neil Freschman, Chief, Traffic Engineering Section, FCDOT

Henri Stein McCartney, Sr. Transportation Planner, FCDOT

Charisse Padilla, Transportation Planner, FCDOT

ASSIGNED COUNSEL:

F. Hayden Coddington, Assistant County Attorney

PROPOSED CODE AMENDMENT

THE CODE OF THE COUNTY OF FAIRFAX, VIRGINIA
APPENDIX R

Amend *The Code of the County of Fairfax, Virginia*, by adding the following to Appendix R, in accordance with Section 82-5-37:

Huntsman Court (Route 7928).

Commercial vehicles, recreational vehicles, and trailers, as defined, respectively, in Fairfax County Code §§ 82-5-7, 82-5B-1, and 82-1-2(a)(50), shall be restricted from parking on the west side of Huntsman Court along commercially zoned areas that are directly across from residentially zoned areas.



ADMINISTRATIVE – 3

Authorization to Advertise a Public Hearing to Consider an Ordinance to Amend and Readopt Section 67.1-10-2 of the Fairfax County Code Relating to Sewer Service Charges, Base Charges, Availability Charges, Fixture Unit Charges, Introducing Charges for Hauled Wastewater and to Amend and Readopt Section 68.1-9-1. C.2 Relating to License Fees for Sewage Handlers

ISSUE:

Authorization to advertise a public hearing to consider an ordinance that proposes to amend and readopt Fairfax County Code Section 67.1-10-2, relating to Sewer Service Charges, Base Charges, Availability Charges, Fixture Unit Charges, introducing Charges for Hauled Wastewater; and to amend and readopt Code Section 68.1-9-1. C.2, relating to license fees for sewage handlers by:

- 1) re-affirming the Sewer Service Charges for FY 2019, adjusting the Sewer Service Charges for FY 2020 through FY 2023, and establishing the Sewer Service Charges for FY 2024;
- 2) re-affirming the Base Charges for FY 2019, adjusting the Base Charges for FY 2020 through FY 2023, and establishing the Base Charges for FY 2024;
- 3) re-affirming the Availability Charges (including the fixture unit rate for nonresidential uses) for FY 2019, adjusting the Availability Charges for FY 2020 through FY 2023, and establishing the Availability Charges for FY 2024;
- 4) introducing charges for Hauled Wastewater effective July 1st, 2019;
- 5) making certain revisions of a housekeeping nature, such as correcting typographical errors; and
- 6) amending license fees for sewage handlers.

Although the sewer charges in the sewer ordinance, Chapter 67.1, are multi-year, all sewer charges are reviewed, adjusted as necessary, and adopted annually to ensure sewer charges are accurately priced.

RECOMMENDATION:

The County Executive recommends that the Board authorize advertisement of a public hearing on April 9, 2019, at 3:00 p.m. to consider these ordinances.

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TIMING:

Board action is requested on March 5, 2019 to provide sufficient time to advertise the proposed public hearing for adoption of these ordinances on April 9, 2019, at 3:00 p.m.

BACKGROUND:

In February 2019, the Wastewater Management Program and its consultants, Public Resources Management Group (PRMG), completed the annual "Revenue Sufficiency and Rate Analysis" (the Rate Study) for the Sewer System. Based upon the results of the Rate Study, changes are proposed to the previously approved FY 2020 to FY 2023 rates.

The following proposed 5-year rate schedule will meet the Program's current and projected 5-year revenue requirements of approximately \$1,234 million by increasing both the Base Charge and Sewer Service Charge, which is the industry practice. This allows for recovering a portion of the Program's costs through the Base Charge and recovering the remaining required revenues through the Sewer Service charge, based on the volume of water consumed. New or revised rates that were not advertised as part of last year's annual rate schedule review are shown in **bold**. Note that the proposed adjustments to Base Charges and Sewer Service Charges for FY 2020 through FY 2023 are less than those presented to the Board during last year's budget process.

Proposed Base Charge of \$32.91 per quarterly bill will recover 20.9 percent of the costs in FY 2020. Industry practice is to recover 25 to 30 percent of the total costs through a Base Charge. In order to strive towards such recovery rate, a phased-in approach is being proposed, as shown in the following table.

BASE CHARGE SCHEDULE* Cost (\$) per Quarterly Bill Proposed New Rates in Bold						
Type of Connection	Current Rate	New Rate				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Residential (3/4" meter)	\$30.38	\$32.91	\$36.20	\$39.82	\$43.97	\$48.29
All customers based on meter size						
3/4" and smaller, or no meter	\$30.38	\$32.91	\$36.20	\$39.82	\$43.97	\$48.29
1"	\$75.95	\$82.28	\$90.50	\$99.55	\$109.93	\$120.73
1 1/2"	\$151.90	\$164.55	\$181.00	\$199.10	\$219.85	\$241.45
2"	\$243.04	\$263.28	\$289.60	\$318.56	\$351.76	\$386.32
3"	\$455.70	\$493.65	\$543.00	\$597.30	\$659.55	\$724.35
4"	\$759.50	\$822.75	\$905.00	\$995.50	\$1,099.25	\$1,207.25
6"	\$1,519.00	\$1,645.50	\$1,810.00	\$1,991.00	\$2,198.50	\$2,414.50
8"	\$2,430.40	\$2,632.80	\$2,896.00	\$3,185.60	\$3,517.60	\$3,863.20
10" and larger	\$3,493.70	\$3,784.65	\$4,163.00	\$4,579.30	\$5,056.55	\$5,553.35

SEWER SERVICE CHARGE SCHEDULE* Per 1,000 gallons of water consumption Proposed New Rates in Bold						
	Current Rate	New Rate				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Sewer Service Charge	\$7.00	\$7.28	\$7.64	\$8.02	\$8.28	\$8.56

*Proposed adjustments to Base Charges and Sewer Service Charges for FY 2020 through FY 2023 are less than those presented to the Board during last year's budget process.

PROPOSED AVAILABILITY CHARGE SCHEDULE

The County has completed reviewing the adequacy of the amount of the Availability Charge. Based upon the results of this review, the Availability Charge is proposed to increase to \$8,340 from \$8,100, a 3.0% increase, for a single-family residence. The revised, five-year rate schedule for the Availability Charges is as follows:

AVAILABILITY CHARGE SCHEDULE Proposed New Rates in Bold						
Type of Connection	Current Rate	New Rate				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Single Family Detached	\$8,100	\$8,340	\$8,340	\$8,340	\$8,340	\$8,340
Lodging House, Hotel, Inn or Tourist Cabin	\$8,100	\$8,340	\$8,340	\$8,340	\$8,340	\$8,340
Townhouse	\$6,480	\$6,672	\$6,672	\$6,672	\$6,672	\$6,672
Apartment	\$6,480	\$6,672	\$6,672	\$6,672	\$6,672	\$6,672
Mobile Home	\$6,480	\$6,672	\$6,672	\$6,672	\$6,672	\$6,672
Any other residential dwelling unit	\$6,480	\$6,672	\$6,672	\$6,672	\$6,672	\$6,672
Hotels, Motels, or Dormitory rental unit	\$2,025	\$2,085	\$2,085	\$2,085	\$2,085	\$2,085

Availability Charges for all non-residential uses will be computed as the number of fixture units (including roughed-in fixture units) in accordance with Part I of the current Virginia Uniform Statewide Building Code, Section 101.2, Note 1, which incorporates by reference the 2012 International Plumbing Code (Chapter 7, Section 709), times the fixture unit rate with a minimum charge equivalent to one (1) single family detached dwelling per premises.

The revised, five-year rate schedule for the fixture unit charge for non-residential uses is as follows:

AVAILABILITY CHARGE SCHEDULE Cost (\$) per Quarterly Bill Proposed New Rates in Bold						
	Current Rate	New Rates				
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Nonresidential per fixture unit	\$405	\$417	\$417	\$417	\$417	\$417

The County's Sewer Service Charges, Base Charges, and Availability Charges remain very competitive on a local basis. Below are average annual sewer service billings and Availability Charges per Single Family Residential Equivalent (SFRE) for Fairfax County compared to other regional jurisdictions, as of January 2019 (FY 2019). Average sewer service billings for the other regional jurisdictions have been developed by applying each jurisdiction's equivalent base charge and sewer service rate to appropriate SFRE water usage determined from Fairfax Water's average water usage for SFREs.

**Comparison of Average Service Charges and Availability Charges for SFREs as
of January 2019 (FY 2019)
Based on 18,000 gallons per quarter for all jurisdictions**

Jurisdiction*	Average Annual Sewer Service Billing	Sewer Availability Fees
DCWASA	\$1,077	----
City of Alexandria	\$767	\$8,859
Arlington County	\$654	\$2,760
WSSC (improved)	\$692	\$14,500
Prince William County	\$587	\$10,800
Fairfax County	\$626	\$8,100
Loudoun Water	\$479	\$8,209

The table below outlines base charges by other regional utilities for comparison to Fairfax County's current Base Charge of \$30.38 and the FY 2020 Base Charge of \$32.91 per quarter, as of January 2019 (FY 2019):

Quarterly Base Charges for Sewer Service for Residential Customers	
DC Water	\$ 74.79
Loudoun Water	\$ 33.43
Prince William County Service Authority	\$ 28.80
Alexandria Renew Enterprises	\$ 28.83
Washington Suburban Sanitation Commission	\$ 28.50
Fairfax County	\$ 30.38
Neighboring Utilities Average	\$ 38.87

PROPOSED HAULED WASTEWATER CHARGES

BACKGROUND:

The County's Septage Receiving Facility (SRF) was constructed to receive and treat septage from local onsite sewage disposal systems in accordance with Section 15.2-2123 of the Code of Virginia. In addition, the SRF receives landfill leachate, portable toilet waste, restaurant grease, and recycled carwash water. Hauled septage and wastewater have been received and treated at no cost to pump and haul contractors to encourage proper disposal. This cost has been covered by the sewer charges paid by the customers of the County's public sewer system. However, the haulers have been charged a license fee by the health department for registration and inspection of the trucks for proper handling and hauling of septage and wastewater. The proposed charges will improve equity among customers served by the sewer system and those served by the pump and haul contractors. Also, the charges will recover a portion of the costs of operation, maintenance, and upcoming necessary improvements to the SRF. The proposed charges, which would be effective beginning July 1, 2019, are as follows:

- (1) High-Strength Waste - \$27 per 1,000 gallons of the hauler's truck capacity for septic tank and restaurant grease wastes.
- (2) Low-Strength Waste - Low-Strength Waste - \$7.28 per 1,000 gallons of the hauler's truck capacity for portable toilet, recycled carwash water, and landfill leachate. This rate is based on the proposed sewer service charge for FY 2020 and will be modified as the sewer service charge is adjusted in the future."
- (3) Reduce sewage handler license fee from \$710 per year for first truck and \$360 per year for each additional truck to \$150 per year per truck.
- (4) Reduce renewal of sewage handler license after January 31 from \$865 per year for first truck and \$550 per year for each additional truck to \$200 per year per truck.
- (5) Eliminate the current process of prorating sewage handler license fees during the year.

The proposed charges are comparable to those charged by the Upper Occoquan Service Authority (UOSA) of \$26 per 1,000 gallons. UOSA does not have different rates for high-strength and low-strength wastes. UOSA is the only other facility in the County that receives hauled wastewater. Also, the proposed license fees are comparable to the fees charged by neighboring jurisdictions.

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FISCAL IMPACT:

In FY 2020, assuming a water usage for a typical residential customer of 18,000 gallons/quarter (or 72,000 gallons/year), the annual sewer bill will be approximately \$656 per year, which is an increase of \$30.28 (or \$2.52 per month) over the FY 2019 sewer bill. In FY 2020, approximately \$9.8 million in additional revenues will be generated with the proposed Sewer Service Charge and the Base Charge over the FY 2019 Revised Budget Plan. Revenues from the collection of Sewer Service Charges, Base Charges, Availability Charges, and Hauled Wastewater Charges are recorded in Fund 69000, Sewer Revenue.

ENCLOSED DOCUMENTS:

Attachment I: The Proposed Amendment to Chapter 67.1 Article 10 (Charges), Section 2 of the Code of the County of Fairfax
Attachments Ia, and Ib: Proposed Public Hearing Advertisements for Charges for Sewer Service, Base, Availability, Fixture Unit and Hauled Wastewater
Attachment II: The Proposed Amendments to Chapter 68.1 Article 9 (Fee Schedule), Section 1 of the Code of the County of Fairfax
Attachment IIa: Proposed Public Hearing Advertisement for License Fee for Sewage Handlers

STAFF:

Rachel Flynn, Deputy County Executive
Randolph W. Bartlett, Director, Department of Public Works and Environmental Services (DPWES)
Dr. Gloria Addo-Ayensu, Director, Fairfax County Health Department
Shahram Mohsenin, Director, Wastewater Planning and Monitoring Division, DPWES

ASSIGNED COUNSEL:

Emily H. Smith, Assistant County Attorney

**AN ORDINANCE AMENDING
ARTICLE 10 OF CHAPTER 67.1 OF THE FAIRFAX COUNTY CODE, RELATING TO
CHARGES FOR THE AVAILABILITY OF, CONNECTION TO, AND/OR USE OF THE
SEWERAGE FACILITIES OF THE COUNTY**

AN ORDINANCE to amend the Fairfax County Code by amending and readopting Section 67.1-10-2, relating to charges for the availability of, connection to, and/or use of the sewerage facilities of the County.

Be it ordained by the Board of Supervisors of Fairfax County:

- 1. That Section 67.1-10-2 of the Fairfax County Code is amended and readopted as follows:**

ARTICLE 10. - Charges.

Section 67.1-10-2. – Availability, Connection, Lateral Spur, Service Charges, Base Charges, and Hauled Wastewater Charges.

(a) Availability Charges.

- (1) Residential uses:** The following schedule of availability charges for residential uses desiring to connect to the Facilities of the County is hereby established and imposed:

	Customer Class	Fiscal Year (July 1-June 30)					
		FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
(A)	Single-Family Detached	\$8,100	\$8,340	\$8,340	\$8,340	\$8,340	\$8,340
(B)	Lodging House, Hotel, Inn or Tourist Cabin	8,100	8,340	8,340	8,340	8,340	8,340
(C)	Townhouse	6,480	6,672	6,672	6,672	6,672	6,672
(D)	Apartment	6,480	6,672	6,672	6,672	6,672	6,672
(E)	Mobile Home	6,480	6,672	6,672	6,672	6,672	6,672
(F)	Any other residential dwelling unit	6,480	6,672	6,672	6,672	6,672	6,672

(G)	Hotel, Motel, or Dormitory rental unit	2,025	2,085	2,085	2,085	2,085	2,085
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23 (2) *Commercial and all other uses:* The following schedule of fixture unit rates for
 24 computing availability charges for all nonresidential uses is hereby established and
 25 imposed:

	Fiscal Year (July 1-June 30)					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Fixture unit rate	\$405	\$417	\$417	\$417	\$417	\$417

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27 The availability charge will be computed as the number of fixture units (including roughed-in
 28 fixture units) in accordance with Part I of the current Virginia Uniform Statewide Building Code
 29 (as amended), Section 101.2, Note 1, which incorporates by reference the 2012 International
 30 Plumbing Code (Chapter 7, Section 709) ("VUSBC"), times the fixture unit rate with a minimum
 31 charge equivalent to one single-family detached dwelling per premises. For Significant Industrial
 32 Users with wastewater discharge permits authorizing discharge into the Integrated Sewer System
 33 and other industrial or commercial Users determined by the Director to have processes generating
 34 significant wastewater flows, the availability charge will be calculated on the basis of equivalent
 35 units. One equivalent unit is equal to 280 gallons per day and rated equal to one single-family
 36 detached dwelling unit. Therefore, the availability charge for Significant Industrial Users and other
 37 industrial or commercial Users determined by the Director to have processes generating significant
 38 flow will be equal to the current rate for a single-family detached dwelling unit times the number
 39 of equivalent units associated with the permitted flow. The number of equivalent units is equal to
 40 the permitted or projected flow in gallons per day divided by 280 gallons per day. Fixture unit
 41 counts, for Users having fixtures discharging continuously or semi-continuously to drainage
 42 system leading to the County sanitary sewer facilities, shall be increased by two fixture units for
 43 each gallon per minute of such continuous or semi-continuous discharge. The rate of such
 44 discharge shall be deemed to be that rate certified by the manufacturer of the fixture or other
 45 equipment, or such other rates as the Director shall determine.

46 (3) *Effective date:* The rate will change on July 1st of each new fiscal year. The rate
 47 applicable to each fiscal year is subject to annual review by the Board of Supervisors.

48 (b) *Connection Charges.*

49 (1) *Residential and community uses:* Except as otherwise provided herein, there is hereby
50 established and imposed a connection charge of \$152.50 per front foot of premises (with
51 a minimum of \$7,625 and a maximum of \$15,250 for the connection of single-family
52 detached and attached dwellings, churches, schools, fire stations, community centers, or
53 other such similar community uses, to the Facilities of the County.

54 (A) The above Connection Charges are effective beginning on July 1, 2011, for all
55 Facilities of the County constructed after July 1, 2011. During the period of July 1,
56 2011, through June 30, 2012, Connection Charges for connections to Facilities of the
57 County constructed prior to July 1, 2011, will be \$6.00 per front foot of premises
58 (with a minimum of \$300.00 and a maximum of \$600.00). Provided, however, the
59 Director may extend the deadline for connection to Facilities of the County from July
60 1, 2012, to December 31, 2012, if the Director determines that for reasons beyond
61 the control of the owner of the premises, at least one of the following conditions are
62 met:

63 (i) All applicable fees and charges have been paid to the County and other
64 appropriate governmental agencies prior to June 30, 2012;

65 (ii) All applicable permits have either been applied for or obtained prior to June
66 30, 2012;

67 (iii) The owner of the premises can show diligent and active efforts to connect to
68 the Facilities of the County prior to June 30, 2012;

69 (iv) The owner has been delayed by the actions of a third party, e.g., delays in the
70 issuance of permits or inspections by any government agency or other party; or

71 (v) The delays have been caused by an Act of God.

72 (B) Connection Charges for connection to the Facilities of the County in the County's
73 Extension and Improvement (E&I) Program that were under design for construction
74 on or before April 12, 2011, and that were not completed on or before that date, will
75 be \$6.00 per front foot of premises (with a minimum of \$300.00 and a maximum of
76 \$600.00) provided all of the following conditions are met:

77 (i) property owners in the E&I project area agree to grant all required easements
78 within four months from the completion of the design;

79 (ii) 50 percent of the property owners in the E&I project area pay the required
80 Availability Charges within four months from the completion of the design; and

81 (iii) connections to the Facilities of the County are made by no later than June 30,
82 2012, or within one year from the completion of the construction of the E&I
83 project, whichever comes last, provided, however, the Director shall have the
84 power to extend this deadline by up to six months for the hardship reasons set
85 forth in subsections (A)(i) through (A)(v), above, provided, however, that in lieu
86 of the date June 30, 2012, the operative date for such extensions shall be one
87 year from the date of completion of construction of the E&I project for which a
88 connection is requested.

- 89 (2) *All other uses:* There is hereby established and imposed a connection charge of \$152.50
 90 per front foot of premises (with a minimum charge of \$15,250) for the connection of all
 91 other uses to the Facilities of the County.
- 92 (3) The connection charges established and imposed above shall not apply to premises to
 93 be connected to the Facilities of the County if such Facilities of the County are
 94 constructed totally at private expense.
- 95 (4) For the purposes of Section 67.1-10-2(b), front foot of premises will be determined by
 96 measuring the frontage of the premises located on the street address side of the premises.
- 97 (c) *Lateral spur charges:* There is hereby established and imposed a lateral spur charge of
 98 \$600.00 for the connection of all uses to a lateral spur, where such lateral spur has been
 99 installed by the County at the expense of Fairfax County.
- 100 (d) *Service charges:* There are hereby established and imposed the following sanitary sewer
 101 service charges:

	Sewer Service Charges — Fiscal Year (July 1 - June 30)					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Sewer Service Charge, \$/1,000 gallons	\$7.00	\$7.28	\$7.64	\$8.02	\$8.28	\$8.56

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- 103 (e) *Base charges:* There are hereby established and imposed the following quarterly base
 104 charges in addition to the sewer service charge:

BASE CHARGE Cost (\$) per Quarterly Bill						
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Residential Base Charge	\$30.38	\$32.91	\$36.20	\$39.82	\$43.97	\$48.29
Commercial: (meter size)						
¾" and smaller, or no meter	\$30.38	\$32.91	\$36.20	\$39.82	\$43.97	\$48.29

1"	\$75.95	\$82.28	\$90.50	\$99.55	\$109.93	\$120.73
1½"	\$151.90	\$164.55	\$181.00	\$199.10	\$219.85	\$241.45
2"	\$243.04	\$263.28	\$289.60	\$318.56	\$351.76	\$386.32
3"	\$455.70	\$493.65	\$543.00	\$597.30	\$659.55	\$724.35
4"	\$759.50	\$822.75	\$905.00	\$995.50	\$1,099.25	\$1,207.25
6"	\$1,519.00	\$1,645.50	\$1,810.00	\$1,991.00	\$2,198.50	\$2,414.50
8"	\$2,430.40	\$2,632.80	\$2,896.00	\$3,185.60	\$3,517.60	\$3,863.20
10" and larger	\$3,493.70	\$3,784.65	\$4,163.00	\$4,579.30	\$5,056.55	\$5,553.35

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106 If requested, the Base Charge for non-residential customers who have sub-meters for irrigation
 107 and other water uses that do not enter the sewer system will be adjusted based on their sub-meter
 108 size per above table. In no case the Base Charge will be smaller than that for ¾" and smaller meter.

109 (1) *Effective date:* The Service charges and Base charges will change on July 1st of each
 110 new fiscal year. For metered accounts, the change is effective with meter readings
 111 beginning October 1st of each year. For unmetered accounts, the change is effective with
 112 billings beginning October 1st of each year.

113 (2) *Premises having a metered water supply:*

Category of Use	Service Charges
(A) Single-family detached and single-family attached dwellings such as townhouses, duplexes, multiplexes, semi-detached, rowhouses, garden court and patio houses with a separate water service line meter.	For each 1,000 gallons of water, based on winter-quarter consumption or current quarterly consumption, as measured by the service line meter, whichever is lower, a charge equal to the effective unit cost rate (\$/1,000 gallons).
(B) All other uses.	For each 1,000 gallons of water as measured by the water service line, a charge equal to the effective unit cost rate (\$/1,000 gallons).

(C) All users.	Base charge per billing as established in Section 67.1-10-2(e).
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(D) The winter-quarter-maximum consumption is determined as follows:

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(i) The quarterly-daily-average consumption of water is the consumption, measured by the water service line meter for the period between meter readings divided by the number of days elapsed between meter readings.

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(ii) The quarterly consumption is 91.5 times the quarterly-daily-average consumption of water in leap years or 91.25 times the quarterly-daily-average consumption in non-leap years.

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(iii) The winter-quarter-consumption is the quarterly consumption determined at the water service line meter reading scheduled between February 1 and April 30. The winter-quarter-consumption of each respective year shall be applicable to the four quarterly sewer billings rendered in conjunction with the regular meter reading scheduled after the next May.

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(iv) All water delivered to the premises, as measured by the winter-quarter-consumption for single-family dwellings and townhouses or the meter of all other Users, shall be deemed to have been discharged to the Facilities of the County. However, any person may procure the installation of a second water service line meter. Such person may notify the Director of such installation, in which event the Director shall make such inspection or inspections as may be necessary to ascertain that no water delivered to the premises or only the water delivered through any such additional meter may enter the Facilities of the County. If the Director determines that water delivered through an additional meter may not enter the Facilities of the County, no charge hereunder shall be based upon such volume of water delivery. If the Director determines that only the water delivered through an additional meter may enter the Facilities of the County, only the water recorded on the additional meter shall be charged. In the alternative, any person may procure the installation of a sewage meter which shall be of a type and installed in a manner approved by the Director, who shall make periodic inspection to ensure accurate operation of said meter; in such event, the charge imposed hereunder shall be based upon the volume measured by such meter. The cost of all inspections required by the foregoing provisions for elective metering, as determined by normal cost accounting methods, shall be an additional charge for sanitary sewer service to the premises on which such meter or meters are installed.

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(E) For single-family premises as in (c)(2)(A) not able to register valid meter readings for the measurement of winter-quarter-consumption the following billing method shall apply:

- 151 (i) Premises not existing, unoccupied or occupied by a different household during
 152 the applicable winter quarter, or which due to unfavorable weather, meter failure
 153 or for any other reason of meter inaccuracy cannot register valid meter readings,
 154 shall not be considered to have a valid meter reading for the purpose of winter-
 155 quarter-consumption measurement.
- 156 (ii) Such premises may be billed on the basis of the average winter-quarter-
 157 consumption for similar dwelling units or the current quarterly consumption, as
 158 registered by water service line meter, or based on historical water usage.
 159 Accounts for single-family premises established by a builder for sewerage
 160 service during construction shall be considered a nonresidential use.
- 161 (3) Premises not having metered water supply or having both well water and public metered
 162 water supply:
- 163 (A) Single-family dwellings, as in (e)(2)(A). An amount equal to the average winter-
 164 quarter-consumption, during the applicable winter quarter, of similar dwelling units,
 165 times the effective unit cost rate (\$/1,000 gallons). In the alternative, any such single-
 166 family residential customer may apply to the County, via the water supplier
 167 providing water service to the area in which the residential customer is located, for
 168 special billing rates, based on average per capita consumption of water in similar
 169 type units.
- 170 (B) All other uses: The charge shall be based upon the number of fixture units and load
 171 factor in accordance with the VUSBC, Table I and Table II Fixture Units and Load
 172 Factors for All Other Premises. There shall be an additional charge equal to the
 173 effective unit cost (\$/1,000 gallons) for the volume discharged by fixtures
 174 discharging continuously or semi-continuously. Volume of continuous or semi-
 175 continuous discharge shall be deemed to be that used in determining availability
 176 charge.
- 177 (f) Hauled Wastewater Charges: There are hereby established and imposed the following Hauled
 178 Wastewater Charges:
- 179 (1) High-Strength Waste - \$27 per 1,000 gallons of the hauler's truck capacity for Septic
 180 tank and restaurant grease wastes.
- 181 (2) Low-Strength Waste - Based on prevailing Sewer Service Charge per 1,000 gallons of
 182 the hauler's truck capacity for portable toilet and landfill leachate. This rate will be
 183 adjusted as the Sewer Service Charge is adjusted from time to time.

186 TABLE I. Table of Fixture Units

Type of Fixture or Group of Fixtures	Drainage Fixture Unit Value(d.f.u.)
Commercial automatic clothes washer (2" standpipe)	3
Bathroom group consisting of water closet, lavatory and bathtub or shower stall (Residential):	
Tank type closet	6
Bathtub (with or without overhead shower)	2
Combination sink-and-tray with food disposal unit	2
Combination sink-and-tray with 1½" trap	2
Dental unit or cuspidor	1
Dental lavatory	1
Drinking fountain	½
Dishwasher, domestic	2
Floor drains with 2" waste	2
Kitchen sink, domestic, with one 1½" waste	2
Kitchen sink, domestic, with food waste grinder and/or dishwasher	2
Lavatory with 1¼" waste	1
Laundry tray (1 or 2 compartments)	2
Shower stall	2

ATTACHMENT I

Sinks:	
Surgeon's	3
Flushing rim (with valve)	6
Service (trap standard)	3
Service (P trap)	2
Pot, scullery, etc.	4
Urinal, pedestal, syphon jet blowout	6
Urinal, wall lip	4
Urinal stall, washout	4
Urinal trough (each 6-ft. section)	2
Wash sink (circular or multiple) each set of faucets	2
Water closet, tank-operated	4
Water closet, valve-operated	6
Fixture drain or trap size:	
1 ¼ inches and smaller	1
1 ½ inches	2
2 inches	3
2 ½ inches	4
3 inches	5
4 inches	6

TABLE II.
Fixture Units and Load Factors for All Other Premises
Quarterly Service Charges
 Fiscal Year (July 1—June 30)

Fixture Units	Load Factor	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
20 or less	1.00	175.00	182.00	191.00	200.50	207.00	214.00
21 to 30	1.25	218.75	227.50	238.75	250.63	258.75	267.50
31 to 40	1.45	253.75	263.90	276.95	290.73	300.15	310.30
41 to 50	1.60	280.00	291.20	305.60	320.80	331.20	342.40
51 to 60	1.75	306.25	318.50	334.25	350.88	362.25	374.50
61 to 70	1.90	332.50	345.80	362.90	380.95	393.30	406.60
71 to 80	2.05	358.75	373.10	391.55	411.03	424.35	438.70
81 to 90	2.20	385.00	400.40	420.20	441.10	455.40	470.80

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91 to 100	2.30	402.50	418.60	439.30	461.15	476.10	492.20
101 to 110	2.40	420.00	436.80	458.40	481.20	496.80	513.60
111 to 120	2.55	446.25	464.10	487.05	511.28	527.85	545.70
121 to 130	2.65	463.75	482.30	506.15	531.33	548.55	567.10
131 to 140	2.75	481.25	500.50	525.25	551.38	569.25	588.50
141 to 150	2.85	498.75	518.70	544.35	571.43	589.95	609.90
151 to 160	2.95	516.25	536.90	563.45	591.48	610.65	631.30
161 to 170	3.05	533.75	555.10	582.55	611.53	631.35	652.70
171 to 180	3.15	551.25	573.30	601.65	631.58	652.05	674.10
181 to 190	3.25	568.75	591.50	620.75	651.63	672.75	695.50
191 to 200	3.35	586.25	609.70	639.85	671.68	693.45	716.90

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201 to 210	3.45	603.75	627.90	658.95	691.73	714.15	738.30
211 to 220	3.55	621.25	646.10	678.05	711.78	734.85	759.70
221 to 230	3.65	638.75	664.30	697.15	731.83	755.55	781.10
231 to 240	3.75	656.25	682.50	716.25	751.88	776.25	802.50
241 to 250	3.85	673.75	700.70	735.35	771.93	796.95	823.90
251 to 260	3.90	682.50	709.80	744.90	781.95	807.30	834.60
261 to 270	4.00	700.00	728.00	764.00	802.00	828.00	856.00
271 to 280	4.05	708.75	737.10	773.55	812.03	838.35	866.70
281 to 290	4.10	717.50	746.20	783.10	822.05	848.70	877.40
291 to 300	4.15	726.25	755.30	792.65	832.08	859.05	888.10
301 to 310	4.20	735.00	764.40	802.20	842.10	869.40	898.80

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311 to 320	4.30	752.50	782.60	821.30	862.15	891.10	920.20
321 to 330	4.40	770.00	800.80	840.40	882.20	910.80	941.60
331 to 340	4.50	787.50	819.00	859.50	902.25	931.50	963.00
341 to 350	4.60	805.00	837.20	878.60	922.30	952.20	984.40
351 to 360	4.70	822.50	855.40	897.70	942.35	972.90	1,005.80
361 to 370	4.80	840.00	873.60	916.80	962.40	993.60	1,027.20
371 to 380	4.90	857.50	891.80	935.90	982.45	1,014.30	1,048.60
381 to 390	5.00	875.00	910.00	955.00	1,002.50	1,035.00	1,070.00
391 to 400	5.10	892.50	928.20	974.10	1,022.55	1,055.70	1,091.40
401 to 410	5.20	910.00	946.40	993.20	1,042.60	1,076.40	1,112.80
411 to 420	5.30	927.50	964.60	1,012.30	1,062.65	1,097.10	1,134.20

ATTACHMENT I

421 to 430	5.40	945.00	982.80	1,031.40	1,082.70	1,117.80	1,155.60
431 to 440	5.50	962.50	1,001.00	1,050.50	1,102.75	1,138.50	1,177.00
441 to 450	5.60	980.00	1,019.20	1,069.60	1,122.80	1,159.20	1,198.40
451 to 460	5.70	997.50	1,037.40	1,088.70	1,142.85	1,179.90	1,219.80
461 to 470	5.80	1,015.00	1,055.60	1,107.80	1,162.90	1,200.60	1,241.20
471 to 480	5.90	1,032.50	1,073.80	1,126.90	1,182.95	1,221.30	1,262.60
481 to 490	6.00	1,050.00	1,092.00	1,146.00	1,203.00	1,242.00	1,284.00
491 to 500	6.10	1,067.50	1,110.20	1,165.10	1,223.05	1,262.70	1,305.40
501 to 525	6.25	1,093.75	1,137.50	1,193.75	1,253.13	1,293.75	1,337.50
526 to 550	6.50	1,137.50	1,183.00	1,241.50	1,303.25	1,345.50	1,391.00
551 to 575	6.75	1,181.25	1,228.50	1,289.25	1,353.38	1,397.25	1,444.50

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576 to 600	7.00	1,225.00	1,274.00	1,337.00	1,403.50	1,449.00	1,498.00
601 to 625	7.25	1,268.75	1,319.50	1,384.75	1,453.63	1,500.75	1,551.50
626 to 650	7.50	1,312.50	1,365.00	1,432.50	1,503.75	1,552.50	1,605.00
651 to 675	7.75	1,356.25	1,410.50	1,480.25	1,553.88	1,604.25	1,658.50
676 to 700	8.00	1,400.00	1,456.00	1,528.00	1,604.00	1,656.00	1,712.00
701 to 725	8.20	1,435.00	1,492.40	1,566.20	1,644.10	1,697.40	1,754.80
726 to 750	8.40	1,470.00	1,528.80	1,604.40	1,684.20	1,738.80	1,797.60
751 to 775	8.60	1,505.00	1,565.20	1,642.60	1,724.30	1,780.20	1,840.40
776 to 800	8.80	1,540.00	1,601.60	1,680.80	1,764.40	1,821.60	1,883.20
801 to 825	9.00	1,575.00	1,638.00	1,719.00	1,804.50	1,863.00	1,926.00
826 to 850	9.20	1,610.00	1,674.40	1,757.20	1,844.60	1,904.40	1,968.80

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851 to 875	9.35	1,636.25	1,701.70	1,785.85	1,874.68	1,935.45	2,000.90
876 to 900	9.50	1,662.50	1,729.00	1,814.50	1,904.75	1,966.50	2,033.00
901 to 925	9.65	1,688.75	1,756.30	1,843.15	1,934.83	1,997.55	2,065.10
926 to 950	9.80	1,715.00	1,783.60	1,871.80	1,964.90	2,028.60	2,097.20
951 to 975	9.95	1,741.25	1,810.90	1,900.45	1,994.98	2,059.65	2,129.30
976 to 1,000	10.15	1,776.25	1,847.30	1,938.65	2,035.08	2,101.05	2,172.10
1,001 to 1,050	10.55	1,846.25	1,920.10	2,015.05	2,115.28	2,183.85	2,257.70
1,051 to 1,100	10.90	1,907.50	1,983.80	2,081.90	2,185.45	2,256.30	2,332.60
1,101 to 1,150	11.30	1,977.50	2,056.60	2,158.30	2,265.65	2,339.10	2,418.20
1,151 to 1,200	11.70	2,047.50	2,129.40	2,234.70	2,345.85	2,421.90	2,503.80
1,201 to 1,250	12.00	2,100.00	2,184.00	2,292.00	2,406.00	2,484.00	2,568.00

ATTACHMENT I

1,251 to 1,300	12.35	2,161.25	2,247.70	2,358.85	2,476.18	2,556.45	2,642.90
1,301 to 1,350	12.70	2,222.50	2,311.40	2,425.70	2,546.35	2,628.90	2,717.80
1,351 to 1,400	13.00	2,275.00	2,366.00	2,483.00	2,606.50	2,691.00	2,782.00
1,401 to 1,450	13.25	2,318.75	2,411.50	2,530.75	2,656.63	2,742.75	2,835.50
1,451 to 1,500	13.50	2,362.50	2,457.00	2,578.50	2,706.75	2,794.50	2,889.00
1,501 to 1,600	14.05	2,458.75	2,557.10	2,683.55	2,817.03	2,908.35	3,006.70
1,601 to 1,700	14.60	2,555.00	2,657.20	2,788.60	2,927.30	3,022.20	3,124.40
1,701 to 1,800	15.15	2,651.25	2,757.30	2,893.65	3,037.58	3,136.05	3,242.10
1,801 to 1,900	15.70	2,747.50	2,857.40	2,998.70	3,147.85	3,249.90	3,359.80
1,901 to 2,000	16.25	2,843.75	2,957.50	3,103.75	3,258.13	3,363.75	3,477.50
2,001 to 2,100	16.80	2,940.00	3,057.60	3,208.80	3,368.40	3,477.60	3,595.20

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2,101 to 2,200	17.35	3,036.25	3,157.70	3,313.85	3,478.68	3,591.45	3,712.90
2,201 to 2,300	17.90	3,132.50	3,257.80	3,418.90	3,588.95	3,705.30	3,830.60
2,301 to 2,400	18.45	3,228.75	3,357.90	3,523.95	3,699.23	3,819.15	3,948.30
2,401 to 2,500	19.00	3,325.00	3,458.00	3,629.00	3,809.50	3,933.00	4,066.00
2,501 to 2,600	19.55	3,421.25	3,558.10	3,734.05	3,919.78	4,046.85	4,183.70
2,601 to 2,700	20.10	3,517.50	3,658.20	3,839.10	4,030.05	4,160.70	4,301.40
2,701 to 2,800	20.65	3,613.75	3,758.30	3,944.15	4,140.33	4,274.55	4,419.10
2,801 to 2,900	21.20	3,710.00	3,858.40	4,049.20	4,250.60	4,388.40	4,536.80
2,901 to 3,000	21.75	3,806.25	3,958.50	4,154.25	4,360.88	4,502.25	4,654.50
3,001 to 4,000	26.00	4,550.00	4,732.00	4,966.00	5,213.00	5,382.00	5,564.00
4,001 to 5,000	29.50	5,162.50	5,369.00	5,634.50	5,914.75	6,106.50	6,313.00

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5,001 to 6,000	33.00	5,775.00	6,006.00	6,303.00	6,616.50	6,831.00	7,062.00
6,001 to 7,000	36.40	6,370.00	6,624.80	6,952.40	7,298.20	7,534.80	7,789.60
7,001 to 8,000	39.60	6,930.00	7,207.20	7,563.60	7,939.80	8,197.20	8,474.40
8,001 to 9,000	42.75	7,481.25	7,780.50	8,165.25	8,571.38	8,849.25	9,148.50
9,001 to 10,000	46.00	8,050.00	8,372.00	8,786.00	9,223.00	9,522.00	9,844.00
10,001 to 11,000	48.85	8,548.75	8,890.70	9,330.35	9,794.43	10,111.95	10,453.90
11,001 to 12,000	51.60	9,030.00	9,391.20	9,855.60	10,345.80	10,681.20	11,042.40
12,001 to 13,000	54.60	9,555.00	9,937.20	10,428.60	10,947.30	11,302.20	11,684.40
13,001 to 14,000	57.40	10,045.00	10,446.80	10,963.40	11,508.70	11,881.80	12,283.60
14,001 to 15,000	60.00	10,500.00	10,920.00	11,460.00	12,030.00	12,420.00	12,840.00

194 NOTES:

195 (1) Base charge is not included in rates above.

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197 GIVEN under my hand this _____ day of _____, 2019

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Catherine A. Chianese
Clerk for the Board of Supervisors

**FAIRFAX COUNTY NOTICE OF PROPOSED
SEWER SERVICE CHARGE & BASE CHARGE - RATE REVISIONS**

NOTICE is hereby given that the Fairfax County Board of Supervisors will hold a **PUBLIC HEARING** on:

**Tuesday
April 9, 2019
commencing at 3 p.m.**

in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on the matter of an amendment to Chapter 67.1 of the Fairfax County Code (Sanitary Sewers and Sewage Disposal), Article 10 (Charges), Section 2. Pursuant to the authority of the Virginia Code, Title 15.2., Chapter 21 (including, without limitation, Sections 15.2-2111, 2119, and 2122), the Board of Supervisors of Fairfax County, Virginia, proposes to amend and readopt Section 67.1-10-2 of the Fairfax County Code by, among other things, changing all references to the unit cost of sewer service and the base charge as follows:

SEWER SERVICE CHARGE SCHEDULE Per 1,000 gallons of water consumption						
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Sewer Service Charge	\$7.00	\$7.28	\$7.64	\$8.02	\$8.28	\$8.56

BASE CHARGE SCHEDULE Cost (\$) per Quarterly Bill						
Type of Connection						
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Residential (3/4" meter)	\$30.38	\$32.91	\$36.20	\$39.82	\$43.97	\$48.29
All customers based on meter size						
3/4" and smaller, or no meter	\$30.38	\$32.91	\$36.20	\$39.82	\$43.97	\$48.29
1"	\$75.95	\$82.28	\$90.50	\$99.55	\$109.93	\$120.73
1 1/2"	\$151.90	\$164.55	\$181.00	\$199.10	\$219.85	\$241.45
2"	\$243.04	\$263.28	\$289.60	\$318.56	\$351.76	\$386.32
3"	\$455.70	\$493.65	\$543.00	\$597.30	\$659.55	\$724.35
4"	\$759.50	\$822.75	\$905.00	\$995.50	\$1,099.25	\$1,207.25
6"	\$1,519.00	\$1,645.50	\$1,810.00	\$1,991.00	\$2,198.50	\$2,414.50
8"	\$2,430.40	\$2,632.80	\$2,896.00	\$3,185.60	\$3,517.60	\$3,863.20
10" and larger	\$3,493.70	\$3,784.65	\$4,163.00	\$4,579.30	\$5,056.55	\$5,553.35

All persons wishing to present their views on these subjects may call the Office of the Clerk to the Board at 703-324-3151 to be placed on the Speakers List, or may appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as information concerning the documentation for the proposed fee, levy, or increase, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia. For the convenience of the public, copies may also be distributed to the County's Regional and Community Public Libraries.

Fairfax County supports the Americans with Disabilities Act by making reasonable accommodations for persons with disabilities. Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a County program, service, or activity, should contact the ADA representative in the Clerk's Office, 703-324-3151, TTY 711, as soon as possible but no later than 48 hours before the scheduled event.

GIVEN under my hand this 5th day of March, 2019.

Catherine A. Chianese
Clerk to the Board of Supervisors

Ad Run Dates: March 8 and 15, 2019

**FAIRFAX COUNTY NOTICE OF PROPOSED
SEWER AVAILABILITY CHARGES, FIXTURE UNIT RATE AND HAULED WASTEWATER CHARGES - RATE REVISIONS**

NOTICE is hereby given that the Fairfax County Board of Supervisors will hold a **PUBLIC HEARING** on:

**Tuesday
April, 2019
commencing at 3 p.m.**

in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on the matter of an amendment to Chapter 67.1 of the Fairfax County Code (Sanitary Sewers and Sewage Disposal), Article 10 (Charges), Section 2. Pursuant to the authority of the Virginia Code, Title 15.2., Chapter 21 (including, without limitation, Sections 15.2-2111, 2119, and 2122), the Board of Supervisors of Fairfax County, Virginia, proposes to amend Section 67.1-10-2 of the Fairfax County Code by, among other things, updating the availability charge schedule for residential, commercial, and all other users desiring to connect to the County sanitary sewer facilities, the fixture unit rate, and proposed hauled wastewater charge as follows:

AVAILABILITY CHARGE SCHEDULE						
Type of Connection	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Single Family	\$8,100	\$8,340	\$8,340	\$8,340	\$8,340	\$8,340
Lodging House, Hotel, Inn or Tourist Cabin	\$8,100	\$8,340	\$8,340	\$8,340	\$8,340	\$8,340
Townhouse	\$6,480	\$6,672	\$6,672	\$6,672	\$6,672	\$6,672
Apartment	\$6,480	\$6,672	\$6,672	\$6,672	\$6,672	\$6,672
Mobile Home	\$6,480	\$6,672	\$6,672	\$6,672	\$6,672	\$6,672
Any other residential dwelling unit	\$6,480	\$6,672	\$6,672	\$6,672	\$6,672	\$6,672
Hotels, Motels, or Dormitory rental unit	\$2,025	\$2,085	\$2,085	\$2,085	\$2,085	\$2,085

The availability charge for all nonresidential uses will be computed as the number of fixture units in accordance with the current Virginia Uniform Statewide Building Code times the fixture unit rate with a minimum charge equivalent to one (1) single family detached dwelling per premises. The revised, five-year rate schedule for the fixture unit charge for nonresidential uses is as follows:

AVAILABILITY CHARGE SCHEDULE						
Cost (\$) per Quarterly Bill						
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Nonresidential per fixture unit	\$405	\$417	\$417	\$417	\$417	\$417

HAULED WASTEWATER CHARGE

The hauled wastewater charge will be calculated based on the size of the wastewater hauler's truck volume capacity as follows:

1. High-strength Waste - \$27 per 1000 gallons for septic tank and restaurant grease waste
2. Low-strength Waste – Based on prevailing sewer service charge per 1000 gallons for portable toilet and landfill leachate. The proposed sewer service charge for FY 2020 is \$7.28 per 1000 gallons

All persons wishing to present their views on these subjects may call the Office of the Clerk to the Board at 703-324-3151 to be placed on the Speakers List, or may appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as information concerning the documentation for the proposed fee, levy, or increase, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia. For the convenience of the public, copies may also be distributed to the County's Regional and Community Public Libraries.

Fairfax County supports the Americans with Disabilities Act by making reasonable accommodations for persons with disabilities. Anyone who requires an auxiliary aid or service for effective communication, or a modification of policies or procedures to participate in a County program, service, or activity, should contact the ADA representative in the Clerk's Office, 703-324-3151, TTY 711, as soon as possible but no later than 48 hours before the scheduled event.

GIVEN under my hand this 5th day of March, 2019.

Catherine A. Chianese
Clerk to the Board of Supervisors

Ad Run Dates: March 8 and 15, 2019

Attachment II

AN ORDINANCE AMENDING ARTICLE 9 OF CHAPTER 68.1 OF THE FAIRFAX COUNTY CODE, RELATING TO THE FEE SCHEDULE FOR SERVICES PROVIDED BY FAIRFAX COUNTY WITH RESPECT TO INDIVIDUAL SEWAGE DISPOSAL FACILITIES

AN ORDINANCE to amend the Fairfax County Code by amending and readopting Section 68.1-9-1, related to the fee schedule established for individual sewage disposal systems for services provided by Fairfax County.

Be it ordained by the Board of Supervisors of Fairfax County:

1. That Section 68.1-9-1 of the Fairfax County Code is amended and readopted as follows:

ARTICLE 9. - Fee Schedule.

Section 68.1-9-1. - General.

This fee schedule establishes fees for services provided by Fairfax County and are separate from, and in addition to, fees that are, or may be, required by the Commonwealth of Virginia.

A. Individual Sewage Disposal System Application:

1. New construction \$200.00
2. Expansion \$125.00
3. Change in approved location \$130.00

B. Written Evaluation of Existing Individual Sewage Disposal System \$200.00

C. License Fee:

1. For persons installing or repairing individual Sewage Disposal systems:

- a. Application \$150.00
- b. Renewal after January 31 \$200.00

2. For sewage handlers:

- a. Application for each vehicle ~~710.00~~ \$150.00
- b. Renewal on each vehicle after January 31: \$200.00

3. For Soil Consultants:

- a. Application \$150.00
- b. Late renewal fee after January 31 \$200.00

D. Permit Fee:

1. For persons providing portable toilets:

- a. Initial application \$75.00
- b. Renewal application \$60.00
- c. Renewal after January 31 \$85.00

E. Plan Review:

Attachment II

- 37 1. Site Development review \$85.00
38 2. Building Permit review \$75.00
39 3. Alternative System review \$200.00
40 F. Re-inspection Fee \$100.00

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GIVEN under my hand this _____ day of _____, 2019

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Catherine A. Chianese
Clerk for the Board of Supervisors

**FAIRFAX COUNTY NOTICE OF PROPOSED
LICENSE FEE FOR SEWAGE HANDLERS - RATE REVISIONS**

NOTICE is hereby given that the Fairfax County Board of Supervisors will hold a **PUBLIC HEARING** on:

**Tuesday
April 9, 2019
commencing at 3 p.m.**

in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on the matter of an amendment to Chapter 68.1 of the Fairfax County Code (Individual Sewage Disposal Facilities), Article 9 (Fee Schedule), Section 1. Pursuant to the authority of the Virginia Code, Title 15.2., Chapter 21 (including, without limitation, Sections 15.2-2111, 2119, and 2122), the Board of Supervisors of Fairfax County, Virginia, proposes to amend Section 68.1-9-1.C.2 of the Fairfax County Code by, among other things, updating the license fees for sewage handlers as follows:

LICENSE FEE FOR SEWAGE HANDLERS

1. The sewage handler license fee will be reduced from \$710 per year for the first truck and \$360 per year for each addition truck to \$150 per year per truck, regardless of the size.
2. After January 31, the renewal of sewage handler license fee will be reduced from \$865 per year for the first truck and \$550 per year for each additional truck to \$200 per year per truck, regardless of the size.
3. Eliminate the current process of prorating sewage handler licensing fees during the year.

All persons wishing to present their views on these subjects may call the Office of the Clerk to the Board at 703-324-3151 to be placed on the Speakers List, or may appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as information concerning the documentation for the proposed fee, levy, or increase, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia. For the convenience of the public, copies may also be distributed to the County's Regional and Community Public Libraries.

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GIVEN under my hand this 5th day of March, 2019.

Catherine A. Chianese
Clerk to the Board of Supervisors

Ad Run Dates: March 8 and 15, 2019

ADMINISTRATIVE - 4

Authorization to Advertise a Public Hearing to Consider Adopting an Ordinance to Establish Economic Revitalization and Redevelopment Zones (Dranesville, Hunter Mill, Lee, Mason and Mount Vernon Districts)

ISSUE:

Board authorization to advertise a public hearing to consider amending Chapter 4, Taxation and Finance, of the *Code of the County of Fairfax, Virginia* (Code) to establish a new Article 29 – Incentives to Encourage Economic Growth which will create Economic Revitalization and Redevelopment Zones (ERRZs) within certain areas of the county.

RECOMMENDATION:

The County Executive recommends that the Board of Supervisors authorize the advertisement of a public hearing on the proposed amendment to Chapter 4, Taxation and Finance to establish Article 29 – Incentives to Encourage Economic Growth.

TIMING:

Board action is requested on March 5, 2019, to advertise a public hearing for April 9, 2019. If adopted, the amendment would take effect on January 1, 2020, and last for a period of ten years until December 31, 2029.

BACKGROUND:

In 2017, the Virginia General Assembly passed HB1970 that provides for regulatory flexibility and financial incentives to encourage the private sector to assemble property for economic development purposes. Pursuant to that legislation, an inter-departmental team developed and vetted with industry a proposal for a program in Fairfax County to provide an economic development opportunity to the private sector consistent with the legislation. At its October 2, 2018, meeting of the Board's Revitalization Committee, staff was directed to draft an ordinance to establish the locations, processes, procedures and incentives of such a program. Details of this Revitalization Committee meeting are available at:

http://www.fcrevite.org/committees/Revit_Reinvest.html

The proposed amendment to the Code would add a new Article 29 - Incentives to Encourage Economic Growth, that would offer regulatory incentives in the form of expedited processing of development applications and inclusion of development

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March 5, 2019

applications in the LDS Project Management Program; a fee reduction of five percent for site plan review; and, a partial real estate tax abatement to private sector developers who assemble and develop properties in accordance with the ordinance and consistent with the vision of the Comprehensive Plan.

These zones would be established for the Commercial Revitalization Districts (CRDs) of Annandale, Baileys Crossroads/Seven Corners, McLean and Springfield; the Commercial Revitalization Area of Lake Anne Village Center; the Richmond Highway Community Business Centers and Suburban Neighborhood Areas as shown in the Comprehensive Plan; Land Units R and Q of the Huntington Transit Station Area as shown in the Comprehensive Plan, which are the land units that abut Richmond Highway; the Lincolnia Community Business Center as shown in the Comprehensive Plan; and, the Franconia-Springfield Transit Station Area, also as shown in the Comprehensive Plan.

In order to qualify for the program, a development would need to have newly assembled a minimum of two parcels that collectively would comprise at least two acres in size and be in conformance with the uses and consolidation recommendations in the Comprehensive Plan; however, the Board could consider smaller acreages. Additionally, up to 20 percent of existing development may be retained and/or repurposed, although the Board may consider greater amounts if necessary to achieve the vision in the Comprehensive Plan.

Following the adoption and prior to the effective date, staff will publicize the program; conduct outreach activities to educate the public and members of the development and real estate communities about the new program; and, begin to review ERRZ applications that may be submitted either as part of by-right or rezoning proposals. Eligible applications would be considered by the Board as an Action Item at a regularly scheduled Board meeting and would be concurrent with any rezoning application, if applicable. Periodic ERRZ updates will be provided to the Board regarding the number of applications, status of qualifying developments, and financial impacts of the program.

FISCAL IMPACT:

Qualifying developments will receive regulatory and economic benefits including expedited processing, a reduction in site plan review fees of up to 10%, and a partial tax exemption on the real estate tax calculated as the difference between the pre-redevelopment (base) assessed value and the post-development assessed value in accordance with Virginia Code. It should be noted that the partial real estate abatement applies only to the County's real estate tax (with a current rate of \$1.15 per \$100 of assessed value) and does not apply to other real estate taxes, such as the Commercial and Industrial tax or special district taxes. It is difficult to quantify the total fiscal impact to the county as a result of the decreased revenue from site plan review fees, but it is estimated to be less than \$100,000 over the ten-year life of the program. In addition, as the County will continue to receive real estate tax revenues on the base (pre-

Board Agenda Item
March 5, 2019

redevelopment) assessed value of developments in the program, the partial tax exemptions of the real estate tax will have no immediate fiscal impact. Real estate taxes will be calculated on the full assessed value of the development no later than December 31, 2029, the expiration date of the incentive period.

ENCLOSED DOCUMENTS

Attachment 1 – Proposed Amendment to the Code of the County of Fairfax, Chapter 4, Article 29, Relating to Incentives to Encourage Economic Growth

STAFF:

Rachel Flynn, Deputy County Executive
Barbara A. Byron, Director, Office of Community Revitalization
Jay Doshi, Director, Department of Tax Administration
Elizabeth A. Hagg, Deputy Director, Office of Community Revitalization
Anne Stevenson, Assistant Director, Department of Tax Administration
Bill Hicks, Director, Land Development Services

ASSIGNED COUNSEL:

Corinne N. Lockett, Senior Assistant County Attorney
Cherie L. Halyard, Assistant County Attorney

1 **AN ORDINANCE ADOPTING**
2 **ARTICLE 29 OF CHAPTER 4 OF THE FAIRFAX COUNTY CODE, RELATING TO**
3 **INCENTIVES to ENCOURAGE ECONOMIC GROWTH**

4
5 **AN ORDINANCE to amend the Fairfax County Code by adopting Article 29**
6 **to Chapter 4 relating to incentives to private entities to encourage economic**
7 **growth.**

8
9 **Be it ordained by the Board of Supervisors of Fairfax County:**

10
11 **1. That Chapter 4, Article 29 of the Fairfax County Code is adopted, as follows:**

12 **ARTICLE 29. – Incentives to Encourage Economic Growth.**

13 **Section 4-29-1. – Title.**

14 This ordinance shall hereafter be known, cited and referred to as the “Economic
15 Revitalization and Redevelopment Zone Ordinance” of Fairfax County.

16
17 **Section 4-29-2. - Purpose and Intent.**

18 Fairfax County seeks to provide an economic revitalization and redevelopment
19 opportunity, in accordance with §§ 15.2-1232.2 and 58.1-3219.4 of the Code of Virginia, by
20 offering regulatory and financial incentives, including partial real estate tax exemptions as set
21 forth below, to encourage the private sector to assemble, revitalize, and redevelop real property
22 suitable for economic development that is consistent with the vision contained in the
23 Comprehensive Plan adopted by Fairfax County.

24
25 **Section 4-29-3. – Definitions.**

- 26 (a) *Application* means the form provided by the Director to be filed by an applicant seeking
27 approval of the redevelopment of an assemblage of parcels and the granting of economic
28 and regulatory incentives pursuant to the terms of this Article.
29
30 (b) *Assemblage* means the combination of adjoining parcels, with different owners, into a
31 single development in accordance with this Article.
32
33 (c) *Commercial and industrial properties* include all real property used for or zoned to
34 permit commercial or industrial uses that are approved and designed for retail or
35 wholesale trade, hotel, restaurant, offices, clinics, warehouses, light manufacturing, and
36 other such uses. Such classification of real property excludes all residential uses.

- (d) Director means the Director of the Office of Community Revitalization, or successor agency, or the designated agent of that Director.
- (e) Economic Revitalization and Redevelopment Zone means a zone that operates as both an economic revitalization zone as provided for in Va. Code § 15.2-1232.2 and a redevelopment district pursuant to Va. Code § 58.1-3219.4.
- (f) Multifamily residential development includes apartments or any building containing more than four residential units. Such classification of real property excludes single-family detached and attached residential units, cooperatives, and condominiums.
- (g) Proposed development means the proposed site design and uses submitted by the applicant(s) for approval under this Article.
- (h) Qualifying property means any assemblage approved by the Board of Supervisors under the criteria of this Article.

Section 4-29-4. – Economic Revitalization and Redevelopment Zones.

The following Economic Revitalization and Redevelopment Zones are hereby established:

- (a) The following Commercial Revitalization Districts as established in Appendix 7 of the Fairfax County Zoning Ordinance:
- (1) Annandale.
 - (2) Bailey's Crossroads/Seven Corners.
 - (3) McLean.
 - (4) Springfield.
- (b) The following areas within the Richmond Highway Corridor Community Business Center (CBC) per the Comprehensive Plan, 2017 Edition, amended May 1, 2018:
- (1) North Gateway Community Business Center (CBC) CBC (Pg. 74, Figure 21).
 - (2) Suburban Neighborhood Area (SNA) between North Gateway and Penn Daw CBCs (Pg. 165, Figure 67).
 - (3) Penn Daw CBC (Pg. 81, Figure 23).
 - (4) SNA between Penn Daw and Beacon/Groveton CBCs (Pg. 167, Figure 68).
 - (5) Beacon/Groveton CBC (Pg. 101, Figure 32).
 - (6) SNA between Beacon/Groveton and Hybla Valley/Gum Springs CBCs (Pg. 168, Figure 69).
 - (7) Hybla Valley/Gum Springs CBC (Pg. 118, Figure 41).
 - (8) SNA between Hybla Valley/Gum Springs and South County CBCs (Pg. 171, Figure 70).
 - (9) South County CBC (Pg. 141, Figure 53).

(10) SNA between South County and Woodlawn CBCs (Pg. 177, Figure 71).

(11) Woodlawn CBC (Pg. 146, Figure 56).

(12) SNA adjacent to Woodlawn CBC (Pg. 180, Figure 72).

(c) Land Units R and Q of the Huntington Transit Station Area (per the Comprehensive Plan, 2017 Edition, amended through October 16, 2018; Pg. 25, Figure 9).

(d) Franconia-Springfield Transit Station Area (per the Comprehensive Plan, 2017 Edition, amended through July 31, 2018; Overview Pg. 2, Figure 1; Land Unit Map Pg. 37, Figure 7).

(e) Lake Anne Village Center (per the Comprehensive Plan, 2017 Edition, amended through July 31, 2018; Pg. 74, Figure 28).

(f) Lincolnia Community Business Center (per the Comprehensive Plan, 2017 Edition, amended through July 31, 2018; Pg. 18, Figure 9).

Section 4-29-5. – Application and Review of Eligibility.

(a) The Director will determine and publish the procedure for submitting an application. Owners of property located within an Economic Revitalization and Redevelopment Zone established in Section 4-29-4, may submit an application to the Director.

(b) Such application must be submitted on forms provided by the Director and must include a plan for development as well as any additional schedules, plans, specifications, and an estimated fair market value of the proposed development that the Director requires.

(c) Every owner of any parcel included in the application must be a party to the application. However, an individual who is the owner of an undivided interest in a parcel may apply on behalf of himself and the other owners of the parcel upon submitting an affidavit that the other owners either: (1) affirm the application, (2) are minors, or (3) after a diligent search, cannot be located.

(d) Upon receipt of an application, the Director will determine whether the application meets the eligibility criteria under this Article. If the application is found eligible, the Director will forward it to the Department of Tax Administration for calculation of an estimated base fair market value based upon the initial proposed development. Any application failing to meet the eligibility criteria will be denied and will be reconsidered only after all missing criteria are met.

(e) The Director will submit an eligible application to the Board of Supervisors for approval either in conjunction with a concurrent rezoning application or separately for a by-right development proposal.

(f) The Application must meet both general and specific eligibility requirements as set forth in Section 4-29-6, as well as Virginia and local law, before being considered for approval by the Board of Supervisors.

Section 4-29-6. – Eligibility.

(a) The proposed development must be a commercial, industrial, and/or multifamily residential development within the territorial limits of one of the Economic Revitalization and Redevelopment Zones described in Section 4-29-4.

(b) An application must contain a newly proposed assemblage, not previously submitted to the County for rezoning or site plan approval, of at least two contiguous parcels that collectively total a minimum of two acres. The application must conform to the use and consolidation recommendations in the Comprehensive Plan. Smaller acreages may be considered by the Board for good cause shown, such as to facilitate redevelopment of parcels. A single parcel may contain multiple structures, but all structures must be fully contained within its parcel lot lines before approval of the application.

(c) Applicants are responsible for obtaining any necessary zoning and site plan approvals in accordance with the Zoning Ordinance and state and local law before receiving incentives in Section 4-29-8(c)(2).

(d) A maximum of 20% of the existing development may be retained and/or repurposed, although greater amounts may be approved by the Board upon demonstration by the applicant that such retention is necessary and furthers the vision in the Comprehensive Plan.

(e) No improvements made to real property are eligible for real estate tax incentives pursuant to the Article unless approved by the Board of Supervisors.

Section 4-29-7. – Calculation of Partial Real Estate Tax Exemption.

A qualifying property shall receive a partial tax exemption to the general real property tax in an amount that is equal to the difference between (i) the Base Value and (ii) the fair market value of the parcel including all new structures or other improvements at the time of the final inspection and valuation.

- (a) Following Board approval of the application and upon written request from the applicant, the Department of Tax Administration will determine a final base fair market value (“Base Value”) for the qualifying property.
- (b) Applicant shall submit a written request for final inspection and valuation by the Department of Tax Administration at any time after construction of any structure is substantially complete (“substantially complete” meaning the point where the physical shell is completed and basic components of the building are installed and improved including complete installation of elevators, electrical, HVAC, and fire prevention sprinkler systems). If the proposed development contains multiple buildings to be constructed in multiple stages, the tax exemption shall be recalculated for each lot upon substantial completion and a final inspection and written valuation request from the applicant.
- (c) The Department of Tax Administration shall provide written notification to the property owner of the amount of the assessment of the property that will be exempt from real property taxation and the period of such exemption.
- (d) At no time may the partial real estate exemption exceed the current year assessment minus the Base Value.
- (e) The partial tax exemption shall run with the land, and, except as otherwise provided in this Article, the owner of such property during each year of the partial exemption shall be entitled to receive a partial tax exemption in the amount specified by the Department of Tax Administration.

Section 4-29-8. – Economic Incentives.

- (a) Incentives shall be administered by the Director and the Department of Tax Administration in accordance with to the general provisions of this Article.
- (b) Regulatory incentives become effective upon a determination of eligibility by the Director and include:
 - (1) Expedited processing of zoning applications and any associated Comprehensive Plan amendments.
 - (2) Inclusion in the Land Development Services Project Management Program.
 - (3) If Engineers and Surveyors Institute program eligible, expedited site review processing within 45 days from the application filing date for the first review and within 28 days from the application filing date for the second review.
 - (4) Priority processing through building plan review.

(c) Financial incentives include:

- (1) A five percent reduction in the site plan fee submitted at the time of application.
(Advertised to up to 10% in reduction in the site plan fee.)
- (2) Partial real estate tax incentives.

Section 4-29-9. - Timing or Effective Rate of Incentives.

This Article shall take effect on January 1, 2020, and expire on December 31, 2029 (incentive period). Real estate tax incentives as set forth in Section 4-29-8(c)(2) shall be effective between January 1 of the tax year next succeeding the year following substantial completion and the end of the incentive period, at which time, the real estate assessment on the subject parcels will revert to full market value. All incentives shall terminate no later than December 31, 2029.

Section 4-29-10.- Failure to pay real estate taxes in a timely manner.

The incentives provided for in Section 4-29-8 shall be suspended if the real estate tax on the qualifying property has not been paid on or before July 28 and December 5 of any year, as required by Sections 4-10-1 and 4-10-2. Failure to pay the real estate tax on or before the day on which the real estate tax is due shall result in the forfeiture of any incentives in that year, and in such cases, the taxpayer shall be liable for the annual real estate tax that otherwise would have been assessed on the full fair market value of the improved real property. Late payment of the real estate tax on the qualifying property shall be subject to late payment penalties and interest in accordance with Sections 4-10-1 and 4-10-2. However, the Director of the Department of Tax Administration may waive any penalty and interest and reinstate the real estate tax exemption if the failure to pay the real estate tax was not in any way the fault of the taxpayer.

2. That the provisions of this ordinance shall take effect on January 1, 2020.

GIVEN under my hand this ____ day of _____, 2019.

Catherine A. Chianese
Clerk for the Board of Supervisor

ADMINISTRATIVE – 5

Extension of Review Period for 2232 Applications (Mount Vernon, Providence, and Sully Districts)

ISSUE:

Extension of review period for 2232 applications to ensure compliance with review requirements of *Section 15.2-2232* of the *Code of Virginia*.

RECOMMENDATION:

The County Executive recommends that the Board extend the review period for the following applications: 2232-V18-25, 2232-P18-20, and 2232A-Y09-18-1.

TIMING:

Board action is required on March 5, 2019, to extend the review period of the applications noted above before their expiration date.

BACKGROUND:

Subsection B of *Section 15.2-2232* of the *Code of Virginia* states: "Failure of the commission to act within 60 days of a submission, unless the time is extended by the governing body, shall be deemed approval." Subsection F of *Section 15.2-2232* of the *Code of Virginia* states: "Failure of the commission to act on any such application for a telecommunications facility under subsection A submitted on or after July 1, 1998, within 90 days of such submission shall be deemed approval of the application by the commission unless the governing body has authorized an extension of time for consideration or the applicant has agreed to an extension of time. The governing body may extend the time required for action by the local commission by no more than 60 additional days. If the commission has not acted on the application by the end of the extension, or by the end of such longer period as may be agreed to by the applicant, the application is deemed approved by the commission." The need for the full time of an extension may not be necessary, and is not intended to set a date for final action.

The review period for the following applications should be extended:

Board Agenda Item
March 5, 2019

- 2232-V18-25 Department of Public Works and Environmental Services
Lorton Community Center
9518 Richmond Highway
Lorton, VA
Mount Vernon District
Accepted January 7, 2019
Extend to December 8, 2019
- 2232-P18-20 Virginia Electric & Power d/b/a Dominion Energy
Tysons Substation
8440 Tyco Road
Tysons, VA
Providence District
Accepted January 25, 2019
Extend to December 26, 2019
- 2232A-Y09-18-1 T-Mobile (Monopole)
Westfield High School
4700 Stonecroft Boulevard
Chantilly, VA
Sully District
Accepted December 11, 2018
Extend to May 10, 2019

FISCAL IMPACT:
None.

ENCLOSED DOCUMENTS:
None.

STAFF:
Rachel Flynn, Deputy County Executive
Fred R. Selden, Director, Department of Planning and Zoning, DPZ
Michelle K. Stahlhut, Chief, Facilities Planning Branch, Planning Division, DPZ
Douglas W. Hansen, Senior Planner, Facilities Planning Branch, Planning Division, DPZ

ADMINISTRATIVE – 6

Authorization to Advertise a Public Hearing on a Proposal to Abandon and Convey Part of Carolina Place (Mason District)

ISSUE:

Authorization of a public hearing on a proposal to abandon and convey a portion of Carolina Place.

RECOMMENDATION:

The County Executive recommends that the Board authorize the advertisement of a public hearing to consider the abandonment and conveyance of the subject right-of-way.

TIMING:

The Board should take action on March 5, 2019, to provide sufficient time to advertise the public hearing for April 9, 2019, at 2:30 p.m.

BACKGROUND:

The applicant, Vulcan Construction Materials, LLC., (Vulcan) is requesting that a portion of Carolina Place be abandoned under Virginia Code §33.2-915 and conveyed to them under Virginia Code §33.2-924. The subject right-of-way is located south of the built section of Carolina Place, which in turn extends south from Edsall Road (Attachment VII). This right-of-way is not in the Virginia Department of Transportation's State Secondary System.

The applicant made the request per the development conditions for Special Exception SE-2017-MA-009, approved on July 10, 2018. Development condition 24 requires the applicant to seek approval by the Board for the abandonment and conveyance prior to site plan approval. Conveyance is necessary, because the applicant's property is not the origin of, or successor to, the right-of-way dedication.

If the abandonment and conveyance are approved, Vulcan, acting through its subsidiary, Florida Rock Industries, will incorporate the property into their site. Future use of the remaining right-of-way will be protected by a reservation of right-of-way for a cul-de-sac at the new terminus of the Carolina Place right-of-way.

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March 5, 2019

Traffic Circulation and Access

The abandonment will have no long-term impact on pedestrian, transit, or vehicle circulation and access. The area is not in use as a public road and Vulcan currently occupies the area.

Easements

No new public easement needs have been identified. Vulcan has agreed to provide a reservation of right-of-way for a cul-de-sac at the new terminus, to protect the usability of the remaining right-of-way for a public street, should one be built in the future.

The proposal to abandon and convey this right-of-way was circulated to the following public agencies and utility companies for review: Office of the County Attorney, Department of Public Works and Environmental Services, Fairfax County Department of Transportation, Department of Planning and Zoning, Fairfax County Park Authority, Fairfax County Water Authority, Fairfax County School Board, Fire and Rescue, Virginia Department of Transportation, Dominion Virginia Power, Washington Gas Light Company, and Verizon. None of these indicate any opposition to the proposal.

FISCAL IMPACT:

None.

ENCLOSED DOCUMENTS:

Attachment I: Application Letter
Attachment II: Notice of Intent
Attachment III: Order of Abandonment
Attachment IV: Resolution to Convey
Attachment V: Metes and Bounds Description
Attachment VI: Abandonment Plat
Attachment VII: Vicinity Map

STAFF:

Rachel Flynn, Deputy County Executive
Tom Biesiadny, Director, Fairfax County Department of Transportation (FCDOT)
Jose Comayauga, Director, Facilities Management Department
Donald Stephens, FCDOT

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McGUIREWOODS

dgill@mcguirewoods.com
 Fax: 703.712.5297

June 28, 2017

Pamela Pelto, Esquire
 Fairfax County Attorney Office
 12000 Government Center Parkway, Suite 549
 Fairfax, Virginia 22035

Donald E. Stephens
 Fairfax County Department of Transportation
 4050 Legato Rd, Suite 400
 Fairfax, Virginia 22033

Re: Carolina Place Vacation/Abandonment Process – SE 2017-MA-009

Dear Pam and Donald:

On behalf of our client, Vulcan Construction Materials, L.L.C. (“Vulcan”), we filed a special exception application on March 29, 2017 (the “Special Exception”), on part of Tax Map 80-2((1))-38, (the “Property”). The special exception request seeks approval to rearrange and update the existing industrial uses on the Property, consistent with the Comprehensive Plan. The application was accepted for processing by the Zoning Evaluation Division on May 11, 2017. As part of the Special Exception, a portion of unused and undeveloped right-of-way dedicated to the Fairfax County Board of Supervisors via Deed Book 2948 at page 187 in 1967 will be vacated and utilized in the site layout (“Carolina Place”). The Board of Supervisors passed a motion to consent to the filing of the Special Exception on April 4, 2017 over Carolina Place.

Our understanding is that the County taken the preliminary position that vacation and/or abandonment of this small portion of Carolina Place will require abandonment and conveyance as surplus property under Virginia Code §33.2-914 through 926. However, we believe our request explicitly meets the alternative method for abandoning roads identified in Virginia Code §33.2-925, which provides a specific and unqualified alternative method available to the Board of Supervisors to vacate Carolina place. §33-925 states:

“As an alternative to the procedure for abandonment prescribed by this article, a road may be abandoned in accordance with the procedure for vacations in subdivision 2 of § 15.2-2272.”

Under 15.2-2272(2), the procedure for vacation is “[b]y ordinance of the governing body of the locality in which the land shown on the plat or part thereof to be vacated lies on motion of one of its members or on application of any interested person. The ordinance shall not be

June 28, 2017

Page 2

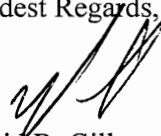
adopted until after notice has been given as required by § 15.2-2204.” This procedure is specifically a creation of §33.2-925 and is not circumscribed by the final paragraph in §15.2-2272 which states:

“Roads within the secondary system of highways may be vacated under either of the preceding methods and the action will constitute abandonment of the road, provided the land shown on the plat or part thereof to be vacated has been the subject of a rezoning or special exception application approved following public hearings required by § 15.2-2204 and provided the Commissioner of Highways or his agent is notified in writing prior to the public hearing, and provided further that the vacation is necessary in order to implement a proffered condition accepted by the governing body pursuant to §§ 15.2-2297, 15.2-2298 or 15.2-2303 or to implement a condition of special exception approval....”

Here, even assuming this final paragraph applies, our proposed vacation of Carolina Place will also meet this test as it will be subject to Special Exception conditions, assuming the Board of Supervisors ultimately approves the Special Exception. Thus, when the vacation/abandonment is processed post Special Exception approval, Carolina Place will be subject to SE Conditions and that such vacation/abandonment will be necessary in order to implement the SE Conditions – meeting the test identified in the last paragraph of 15.2-2272.¹

Therefore on behalf of our client we are requesting written confirmation that the County will process our request to vacate/abandonment pursuant to 15.2-2272 presuming our application is consistent with the approach identified herein. This is consistent with plain letter of Virginia Code and reflects an equitable approach for a long-standing property owner which is working through the public land use process to best achieve the goals of Fairfax County and the community.

Kindest Regards,



David R. Gill

91328685_1

¹ Under §15.2-2274 the effect of such vacation under §15.2-2272 is that fee title automatically vests in the original granting owner. For Carolina Place this would be Vulcan.

NOTICE OF INTENT TO ABANDON AND CONVEY

CAROLINA PLACE

MASON DISTRICT

Fairfax County, Virginia

Notice is hereby given that the Board of Supervisors of Fairfax County, Virginia, will hold a public hearing on April 9, 2019, at 2:30 PM during its regular meeting in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, VA, 22030, pursuant to Virginia Code Ann. § 15.2-2204, on the proposed abandonment of a public road known as a portion of Carolina Place, from the southern line of Tax Map 80-2((1))-45 to its southern terminus, a distance of 978.52 feet, pursuant to Virginia Code § 33.2-914. At the same time and place, the Board of Supervisors will concurrently hold a public hearing on a proposal to convey the right-of-way so abandoned to Florida Rock Industries, Inc., a subsidiary of Vulcan Construction Materials, LLC. The road is located adjacent to Tax Map 80-2((1))-38, and is described and shown on the metes and bounds schedule and plat prepared by VIKA Virginia LLC, dated September 12, 2017, both of which are on file with the Fairfax County Department of Transportation, 4050 Legato Road, Suite 400, Fairfax, Virginia 22033, Telephone Number (703) 877-5600.

MASON DISTRICT.

§33.2-915, §33.2-924

ORDER OF ABANDONMENT

CAROLINA PLACE

MASON DISTRICT

Fairfax County, Virginia

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held this 9th day of April, 2019, it was duly moved and seconded that:

WHEREAS, after conducting a public hearing pursuant to notice as required by Virginia Code §33.2-909, and after giving due consideration to the historic value, if any, of such road, the Board has determined that no public necessity exists for continuance of this road as a public road, and that the safety and welfare of the public will be served best by an abandonment,

WHEREFORE, BE IT ORDERED:

That Carolina Place from the southern line of Tax Map 80-2-((1))-45 to its southern terminus, a distance of 978.52 feet, located adjacent to Tax Map 80-2-((1))-38, and described on the plat and metes and bounds schedule prepared by VIKA Virginia LLC dated September 12, 2017, which is attached hereto and incorporated herein, be and the same is hereby abandoned as a public road pursuant to Virginia Code §33.2-914.

This abandonment is subject to any right, privilege, permit, license, or easement in favor of any public service company, utility, or other person or entity, including any political subdivision, whether located above, upon, or under the surface, either presently in use or of record, including the right to operate, maintain, replace, alter, extend, increase or decrease in size any facilities in the abandoned roadway, without any permission of the landowner(s).

A Copy Teste:

Catherine Chianese

Clerk to the Board

§33.2-915

RESOLUTION

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Fairfax County Government Center at Fairfax, Virginia, this 9th day of April, 2019, at which a quorum was present and voting, the following resolution was adopted:

WHEREAS, the Board of Supervisors has approved the abandonment of part of Carolina Place located entirely adjacent to Tax Map 80-2-((1)) Parcel 38, described and shown on the metes and bounds schedule and abandonment plat dated September 12, 2017, both prepared by VIKA Virginia LLC,

WHEREAS, Florida Rock Industries, Incorporated, a subsidiary of Vulcan Construction Materials LLC, seeks to acquire the fee simple interest in the parcel created by said abandonment for consideration of development conditions approved by the Board of Supervisors pursuant to that certain Special Exception SE 2017-MA-009, approved on July 10, 2019 (the “Special Exception”) by the Board of Supervisors.

WHEREAS, the County has no current or planned use for the parcel created by the abandonment,

WHEREAS, the Board of Supervisors finds that it would be in the best interest of the residents of Fairfax County to convey in consideration of the development conditions associated with Special Exception as described above to the Applicant.

NOW, THEREFORE, upon public hearing duly advertised according to law, it is **RESOLVED** that, in consideration of the development conditions associated with the Special Exception, the County Executive or Deputy County Executive is hereby authorized to execute all necessary documents to convey the real property described above to the Applicant.

A Copy Teste:

Catherine A. Chianese

Clerk to the Board of Supervisors

§33.2-924

NOTES:

1. THE SUBJECT PROPERTY IS ADJACENT TO PROPERTY OWNED BY FAIRFAX COUNTY TAX MAP 15-2-22-001.
2. THE SUBJECT PROPERTY IS LOCATED IN ZONE "C" (AREA DEDICATED TO BE COVERED BY THE 0.2% ANNUAL CHANCE OF FLOODING) AS SHOWN ON THE REGIONAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP (FIRM) NUMBER 15-2-22-001, DATED SEPTEMBER 11, 2014. ZONE "C" IS NOT A FLOOD HAZARD AREA.
3. THE PLAT OF THE PROPERTY SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 (VCS) AS COMPILED FROM A GPS SURVEY PERFORMED BY WEA, VIRGINIA, LLC, ON AUGUST 11, 2014. UNDER THE COORDINATE SYSTEM OF 1983, THE PLAT IS LOCATED IN ZONE 14N - 65N (NAD 83) AND ZONE 14N - 65N (NAD 83).
4. THE PLAT OF THE PROPERTY SHOWN HEREON IS BASED ON A RECONSTRUCTION OF THE PROPERTY SHOWN HEREON, WHICH WAS RECONSTRUCTED FROM A PHOTOGRAPHIC SURVEY OF THE PROPERTY SHOWN HEREON, WHICH WAS CONDUCTED BY WEA, VIRGINIA, LLC, ON AUGUST 11, 2014. THE PHOTOGRAPHIC SURVEY WAS CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE VIRGINIA SURVEYING BOARD.
5. THE SUBJECT PROPERTY DOES NOT LIE IN A RECORD PROTECTION AREA (RPA) FOR FAIRFAX COUNTY 99A MAP 15-2-22-001.
6. THE SUBJECT PROPERTY DOES NOT LIE IN A RECORD PROTECTION AREA (RPA) FOR FAIRFAX COUNTY 99A MAP 15-2-22-001.
7. THE SUBJECT PROPERTY DOES NOT LIE IN A RECORD PROTECTION AREA (RPA) FOR FAIRFAX COUNTY 99A MAP 15-2-22-001.
8. THE GOVERNMENT OF FAIRFAX COUNTY HAS BEEN ADVISED OF THE PROVISIONS OF THE VIRGINIA COORDINATE SYSTEM OF 1983 (VCS) AND THE PROVISIONS OF THE VIRGINIA COORDINATE SYSTEM OF 1983 (VCS) AND THE PROVISIONS OF THE VIRGINIA COORDINATE SYSTEM OF 1983 (VCS).

WETLAND NOTE:

I HEREBY CERTIFY THAT ALL WETLAND PERMITS REQUIRED BY LAW WILL BE OBTAINED PRIOR TO COMMENCING LAND DEVELOPMENT ACTIVITIES.

SIGNATURE: *[Signature]* AS AGENT FOR GOODWIN DEVELOPERS

OWNER/DEVELOPER: *ELIZABETH BOCK INVESTMENTS, INC.*

SURVEYOR'S CERTIFICATION:

I, FRANKLIN E. JONES, A LICENSED LAND SURVEYOR IN THE COMMONWEALTH OF VIRGINIA, DO HEREBY CERTIFY THAT I HAVE CAREFULLY SURVEYED THE PROPERTY DELINEATED ON THIS PLAT OF VACATION AND THAT IT IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF, THAT IT IS A PORTION OF CAROLINA PLACE AS DEDICATED TO THE BOARD OF COUNTY SUPERVISORS OF FAIRFAX COUNTY, VIRGINIA BY DEED OF DEDICATION RECORDED IN DEED BOOK 2548 AT PAGE 187. ALL AMONG THE LAND RECORDS OF FAIRFAX COUNTY, VIRGINIA.

I FURTHER CERTIFY THAT THE LAND EMBODIED BY THIS PLAT OF VACATION LIES ENTIRELY WITHIN THE BOUNDS OF THE ORIGINAL TRACT, THAT THIS PLAT REPRESENTS AN ACCURATE SURVEY OF THE SAME AND THAT THE PROPERTY SHOWN HEREON IS REFERENCED TO THE VIRGINIA COORDINATE SYSTEM OF 1983 (VCS). SEE NOTE 3, IN ACCORDANCE WITH THE REQUIREMENTS OF THE FAIRFAX COUNTY SUBDIVISION ORDINANCE.

DATE: 9/12/2017



[Signature]
FRANKLIN E. JONES
LICENSED LAND SURVEYOR
VIRGINIA # 2091



APPROVED COUNTY OF FAIRFAX LAND DEVELOPMENT SERVICES ADDRESSING REVIEW	
DATE: 9/12/2017	SHEET NUMBER: 1
RECOMMENDED FOR APPROVAL: FAIRFAX COUNTY LAND DEVELOPMENT SERVICES ALL RIGHTS RESERVED CONSENT TO THE REQUIREMENTS OF THIS OFFICE THIS PERSONAL IS NOT A COMMITMENT TO PROVIDE PUBLIC LAMINATE SERVICES.	
DATE: 9/12/2017	SHEET NUMBER: 1
APPROVED FOR BOARD OF SUPERVISORS FAIRFAX COUNTY, VIRGINIA DATE: 9/12/2017	
APPROVAL: JOB # PLAT IS NOT OFFERED FOR RECORD ON OR BEFORE	

PLAT SHOWING
VACATION OF
A PORTION OF
CAROLINA PLACE
50 FOOT WIDE RIGHT OF WAY
DEED BOOK 2548 AT PAGE 187
FAIRFAX COUNTY, VIRGINIA
SCALE: N/A. DATE: 09/12/2017
SHEET 1 OF 2

WKA VIRGINIA LLC
1810 GREENBROOK DRIVE, SUITE 202 ■ FRYSDALE, VIRGINIA 22132
(703) 442-7800 ■ FAX (703) 791-2787
WWW.VIRK.COM





SEPTEMBER 12, 2017

**DESCRIPTION OF
A PORTION OF
CAROLINA PLACE
50 FEET WIDE
DEED BOOK 2948 PAGE 187
MASON DISTRICT
FAIRFAX COUNTY, VIRGINIA**

Being a portion of Carolina Place (50 feet wide) as recorded in Deed Book 2948 at Page 187 among the Land Records of Fairfax County, Virginia and being more particularly described as follows:

Beginning for the same at a point lying on the westerly right of way line of aforesaid Carolina Place (50 feet wide), said point also marking the common corner between the property of Gregg A McCaa and Kevin T McCaa as recorded in Deed Book 12629 at Page 1268 and the property of Florida Rock Industries, Inc. as recorded in Deed Book 16022 at Page 502 all among the aforesaid Land Records; thence leaving said common corner and running so as to cross and include a portion of said Carolina Place the following 4 courses and distances

1. South 88°37'19" East, 50.00 feet to a point on the easterly right of way line of said Carolina Place; thence
2. South 01°23'24" West, 978.52 feet to a point; thence
3. North 88°36'36" West, 50.00 feet to a point on the aforesaid westerly right of way line of Caroline Place; thence
4. North 01°23'24" East, 978.51 feet to the point of beginning and containing 48,926 square feet or 1.12319 acres of land, more or less.

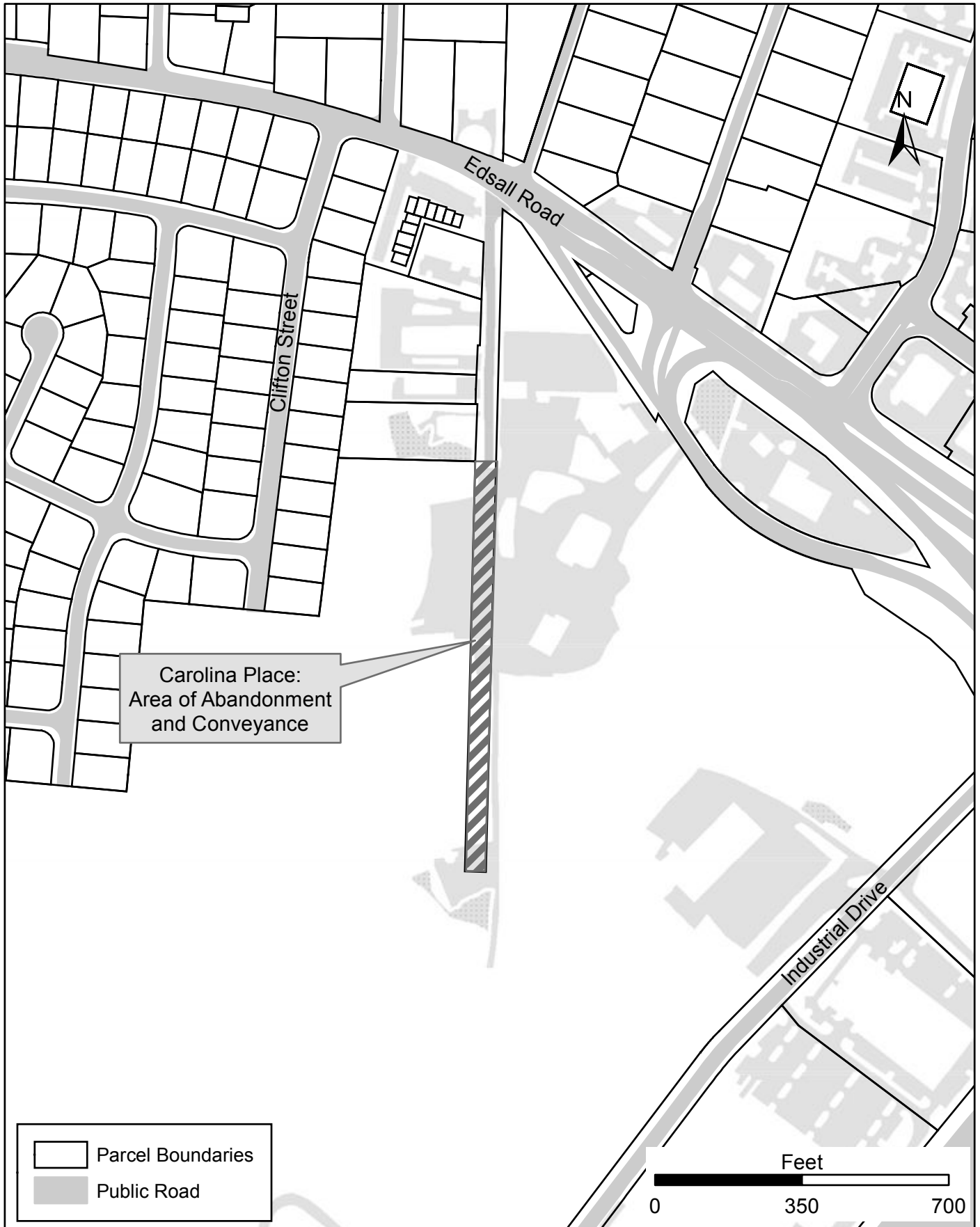
P:\projects\7871\7871A\CADD\SURVEYS\PLATS\7871A Carolina Place.docx

VIKA Virginia, LLC

8180 Greensboro Drive, Suite 200 * Tysons, Virginia 22102 * 703.442.7800 Fax 703.761.2787
Tysons, VA * Germantown, MD * Washington, DC

www.vika.com

Vicinity Map - Tax Map 80-2



ADMINISTRATIVE - 7

Authorization to Advertise a Public Hearing to Amend Appendix I of the Code of the County of Fairfax Re: Fairfax County Special Service District for the Control of Infestations of Insects that May Carry a Disease that is Dangerous to Humans, Gypsy Moths, Cankerworms and Certain Identified Pests – Allow Use of Service District Funds to Remediate Damage Cause by Forest Pests

ISSUE:

Board of Supervisors authorization to advertise a public hearing to amend Appendix I of the Code of the County of Fairfax, Fairfax County Special Service District for the Control of Infestations of Insects that May Carry a Disease that is Dangerous to Humans, Gypsy Moths, Cankerworms and Certain Identified Pests. The proposed changes will allow use of service district funds to remediate damage to trees caused by forest pests including removal of damaged trees when indicated.

RECOMMENDATION:

The County Executive recommends that the Board authorize advertisement of a public hearing regarding proposed amendments to Appendix I of the Code of the County of Fairfax.

TIMING:

Board action is requested on March 5, 2019, to provide sufficient time to advertise the proposed public hearing on April 9, 2019, at 2:30p.m.

BACKGROUND:

The Integrated Pest Management (IPM) Program in Fund 40080 includes two separate programs – the Forest Pest Program and the Disease Carrying Insects Program. A countywide tax levy financially supports Fund 40080 activities, excluding the Lake Barcroft Watershed Improvement District. The Forest Pest Program aims to maintain and improve the health of the County's forests by monitoring and, when appropriate, applying suppression and treatment methods to reduce the impact of forest pest infestations. While the Forest Pest Program has been successful in controlling many varieties of forest pests through carefully implemented suppression programs, some pests are not manageable through suppression programs on a large scale. As a result, some pests, such as the emerald ash borer (EAB) beetle can cause widespread damage to County trees. Dead and dying trees that have been infested by forest pests can pose a safety risk to people and property, and thus require remediation. Appendix I of the Fairfax County Code provides that taxes levied for the service district can only be used for control of infestations of forest pests and disease carrying insects,

Board Agenda Item
March 5, 2019

and removal or remediation of hazardous trees is not a control measure. The proposed amendments will enable the IPM Program to use service district funds for the remediation of damage caused by forest pests, including pruning or removal of trees directly killed or damaged by forest pests.

At the October 2, 2018, Environmental Committee meeting, staff presented the proposal to amend Appendix I to the Board. The Board directed staff to include historical year-end service district fund balances in Fund 40080 in the administrative item requesting authorization to advertise a public hearing on these proposed amendments. Fund 40080 year-end balances for the past three years are set forth below:

- FY 2018: \$3,167,166
- FY 2017: \$2,805,322
- FY 2016: \$2,481,302

The proposed changes to Appendix I also include several minor technical amendments.

FISCAL IMPACT:

Fund 40080, Integrated Pest Management Program is supported by a countywide tax levy excluding the Lake Barcroft Watershed Improvement District. The current tax rate is sufficient to cover the costs associated with the existing IPM program as well as the proposed changes to the service district that would expand the scope of the program's activities to allow service district funds to be used for the remediation and removal of hazardous trees that pose a threat to public safety and have been damaged by forest pests. An increase to the service district tax rate is not required and only taxes levied after July 1, 2019 will be used for this new purpose.

ENCLOSED DOCUMENTS:

Attachment I – Proposed Amendments to Appendix I (markup)

STAFF:

Rachel O. Flynn, Deputy County Executive
Randolph W. Bartlett, Director, Department of Public Works and Environmental Services (DPWES)
Brian Keightley, Director, Urban Forest Management Division, DPWES

ASSIGNED COUNSEL:

John Burton, Assistant County Attorney

**AN ORDINANCE AMENDING
APPENDIX I OF THE FAIRFAX COUNTY CODE, RELATING TO
THE FAIRFAX COUNTY SPECIAL SERVICE DISTRICT FOR THE CONTROL OF
INFESTATIONS OF INSECTS THAT MAY CARRY A DISEASE THAT IS
DANGEROUS TO HUMANS, GYPSY MOTHS, CANKERWORMS AND CERTAIN
IDENTIFIED PESTS**

Draft of February 6, 2019

AN ORDINANCE to amend the Fairfax County Code by amending and readopting Appendix I, relating to the Fairfax County Special Service District for the Control of Infestations of Insects that May Carry a Disease that is Dangerous to Humans, Gypsy Moths, Cankerworms and Certain Identified Pests. wild and exotic animals.

Be it ordained by the Board of Supervisors of Fairfax County:

- 1. That Sections 2, 3, 4, 5, 6 and 8(a) of Appendix I of the Fairfax County Code are amended and reenacted as follows:**

Section 2 – Purpose of the Service District.

The Service District is created to provide a pest infestation control and remediation program which shall include, but not be limited to, these services: (i) Public education, (ii) assisting citizen self-help initiatives, (iii) a suppression program for gypsy moths, cankerworms and other pests identified by the Commissioner of the Virginia Department of Agriculture and Consumer Services (referred to collectively as "forest pests") in accordance with ~~the Virginia Pest Law Article 6 (Virginia Code §§ 3.1-188.20- 3.2-700 et seq.) of Chapter 13 of Title 3.1, as amended,~~ utilizing biological and chemical insecticides on highly infested areas of Fairfax County; (iv) remediation of direct damage caused by such forest pests, including but not limited to the removal of trees killed or damaged by such forest pests on public lands to enhance public safety, and (iv) a management program for insects that may carry a disease that is dangerous to humans (referred to collectively as "disease-carrying insects").

Section 3. - General provisions and powers.

The Board shall be the governing body of the Service District. The Board shall exercise any or all of those powers and duties with respect to special service districts set forth in Virginia Code §§ 15.2-2400 through ~~15.2-2404~~ 15.2-2403, as amended.

Section 4. - Facilities and services to be provided.

The Service District, together with resources which may be made available from other sources, shall provide the equipment and staff needed to provide a program or programs for the control of infestations of insects that may carry a disease that is dangerous to humans, gypsy moths, cankerworms and such other pests as may be identified by the Commissioner of the Virginia Department of Agriculture and Consumer Services in accordance with ~~the Virginia Pest Law Article 6 (Virginia Code §§ 3.21-188-20700 et seq., as amended)~~ of Chapter 13 of Title 3-1, and remediation of direct damage caused by such pests.

Section 5. - Annual tax levy; collection and expenditure of funds.

There shall be an annual tax at a rate established annually by a duly authorized resolution of the Board of Supervisors on all real property in the Service District which is subject to taxation for the purpose of paying, in whole or in part, the expenses and charges for providing a pest infestation control and remediation program or programs. This Service District is not established for general government purposes. All proceeds from the annual levy described in this Section shall be so segregated as to enable the Board to appropriate the same in the Service District for the purposes for which it was levied.

Section 6. - Plan for forest pest control services.

The forest pest infestation control program implemented in the Service District will be an Integrated Pest Management Program which shall use, but shall not be limited to, resources provided by the Service District, as well as federal and state agencies. The purposes of the forest pest infestation control and remediation program are to minimize tree defoliation and mortality due to infestations of gypsy moths, cankerworms and other pests identified by the Commissioner of the Virginia Department of Agriculture and Consumer Services, ~~and to minimize hazards to the environment from forest pest infestation treatment, and to minimize the hazards caused by such infestation.~~ The program will be an annual operation with the following major elements: identification of tree-damaging infestations through forest pest monitoring; development of a plan to suppress tree-damaging infestations using appropriate mechanical, biological, and/or chemical means annually; provision of suppression information to County citizens; ~~and spot treatment of tree-damaging infestations as needed; and removal of trees directly killed or damaged by such infestations.~~

1 The County forest pest infestation control program will include and incorporate the
2 Cooperative Gypsy Moth Suppression Program Participation Guidelines for localities
3 conducting aerial treatment which are promulgated and published on an annual basis by
4 the Virginia Department of Agriculture and Consumer Services. The County will employ
5 only those insecticides which are registered with the United States Environmental
6 Protection Agency and which are sanctioned for use by the United States Department of
7 Agriculture-Forest Service, and the Commonwealth of Virginia. Treatment with biological
8 and chemical insecticides is on a voluntary basis. Citizens not desiring to participate can
9 notify the Fairfax County Forest Pest Program Office in writing following receipt of
10 notification of proposed treatment. The County forest pest infestation control program also
11 may include local integrated pest management suppression strategies, (i.e. supplemental
12 treatment, use of parasites, use of pheromones), which shall be outlined in the description
13 of the County's annual forest pest infestation control program. This program shall be
14 submitted for prior approval to the Board of Supervisors on an annual basis. A copy of
15 the State guidelines in effect for a given year shall be submitted annually to the Board of
16 Supervisors.

17
18 Citizen self-help will emphasize the following elements. In the summer and fall citizens
19 are encouraged to participate in the Gypsy Moth Egg Mass Search, Scrape, and Destroy
20 Campaign which is aimed at locating egg masses, reporting egg mass counts to the
21 Forest Pest Program Staff, and destroying egg masses as possible. In the spring, citizens
22 are encouraged to participate in a burlap banding campaign which is aimed at destroying
23 gypsy moth caterpillars. Additionally, the Forest Pest Program Staff will provide technical
24 assistance to citizens and citizen organizations who desire to conduct private infestation
25 treatment on their land. Public education will be a continuous part of the program. It will
26 provide information about infestations and methods to minimize the effects of infestations
27 to all citizens in the Service District.

28
29 **Section 8. - Benefits to be expected from the service district.**

30
31 (a) Programs to Suppress Gypsy Moth, Cankerworm and Other Pests Identified by
32 the Commissioner of the Virginia Department of Agriculture and Consumer Services.

33
34 The forest pest infestation control and remediation program provided by the Service
35 District funding will have the capability to locate and treat infestations on both public and
36 private lands, and remediate the direct damage caused by these infestations by removing
37 trees on public lands that have been killed or damaged by these infestations. In the
38 absence of the program, many properties would receive no treatment, resulting in tree
39 mortality and reinfestation of adjacent properties.

1 Due to the economies of scale of aerial treatment, the forest pest infestation control
2 program is more cost-effective than individual treatment on a per-acre basis. Significant
3 economies of scale will be realized with a control program which treats large areas within
4 the County. These could not be realized by individual landowners treating their property
5 on an individual basis.

6
7 The aerial treatment of tree damaging infestations at the proper time by a trained staff
8 using the most environmentally sound insecticides minimizes the amount of insecticide
9 introduced into the environment and therefore minimizes the hazard to the environment
10 of forest pest infestation suppression efforts.

11
12 The forest pest infestation control program is a biologically effective, cost-effective,
13 and environmentally sound means to minimize tree defoliation and mortality and to
14 minimize infestation nuisance. This program maintains the tree habitat of the County and
15 thereby assists in maintaining individual and collective property values and contributes to
16 the overall quality of life.

17
18 **2. That the provisions of this ordinance are severable, and if any provision of**
19 **this ordinance or any application thereof is held invalid, that invalidity shall**
20 **not affect the other provisions or applications of this ordinance that can be**
21 **given effect without the invalid provision or application.**

22
23 **3. That the provisions of this ordinance shall take effect on July 1, 2019.**
24

25 GIVEN under my hand this ____ day of _____, 2019.
26

27
28 _____
29 Clerk to the Board of Supervisors
30
31

ADMINISTRATIVE – 8

Supplemental Appropriation Resolution AS 19204 for the Department of Family Services to Accept Grant Funding from the Virginia Early Childhood Foundation, Preschool Development Grant Birth-Five Pilot Initiative

ISSUE:

Board approval of Supplemental Appropriation Resolution AS 19204 for the Department of Family Services to accept grant funding from the Virginia Early Childhood Foundation (VECF), Preschool Development Grant Birth-Five Pilot Initiative in the amount of \$393,375. Funding, which originates from the U.S. Department of Health and Human Services, will be used to build relationships with families and early childhood programs; measure and increase access to high-quality early childhood programs; and measure and strengthen the experiences that young children, birth to five and at-risk children, receive. The grant period is December 31, 2018 to December 31, 2019. No Local Cash Match is required. The state has made this funding available to current recipients of the Mixed Delivery Preschool Grant through VECF and the County's funding allocation is based on full participation of all current grant recipients. If all current grant recipients do not participate, the County may receive supplemental funding. If supplemental funding is received, staff will process the award in accordance with Board policy for supplemental awards. Board authorization is also requested for the Chairman of the Board of Supervisors, the County Executive and/or a designee appointed by the County Executive to enter into the grant agreement and any related agreements, including but not limited to Federal Subaward Agreements, on behalf of the County.

RECOMMENDATION:

The County Executive recommends that the Board approve Supplemental Appropriation Resolution AS 19204 for the Department of Family Services to accept funding from the Virginia Early Childhood Foundation, Preschool Development Grant Birth-Five Pilot Initiative. Funding in the amount of \$393,375 will be used to build relationships with families and early childhood programs; measure and increase access to high-quality early childhood programs; and to measure and strengthen the experiences that young children, birth to five and at-risk children, receive. The County Executive also recommends the Board authorize the Chairman of the Board of Supervisors, the County Executive and/or a designee appointed by the County Executive to enter into the grant agreement and any related agreements, including but not limited to Federal Subaward Agreements, on behalf of the County.

TIMING:

Board action is requested on March 5, 2019. In order to participate in this grant opportunity, a declaration of intent to participate was required on February 15, 2019. The intent was submitted pending Board approval. This Board item is being presented

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at the earliest subsequent Board meeting scheduled for March 5, 2019. If the Board does not approve the request to accept grant funding, the intent to participate will be withdrawn.

BACKGROUND:

Fairfax County and the state of Virginia share a vision that all children regardless of background or the zip code in which they live are capable of and deserve to enter kindergarten ready to succeed. The purpose of this grant is to provide the opportunity for Fairfax County to participate in a state-wide effort to establish models at the local level to be scaled to other communities and used to inform policymaking and practice at the state level. Fairfax County will receive funding, resources and supports to unify and strengthen its birth to five early childhood system to improve kindergarten readiness. Relationships with publicly-funded early childhood programs and families will be built in order to measure and increase access and quality of programs. See Attachment 3 for a Summary of Proposed Grant Funding.

FISCAL IMPACT:

Grant funding in the amount of \$393,375 is available from the Virginia Early Childhood Foundation, Preschool Development Grant Birth-Five Pilot Initiative. These funds will be used to build relationships with families and early childhood programs; evaluate enrollment and resources to increase access to high-quality early childhood programs; and assess quality elements to strengthen the experiences that children, birth to five and at-risk children, receive. This action does not increase the expenditure level of the Federal-State Grant Fund, as funds are held in reserve for unanticipated awards. No Local Cash Match is required. Recovery of Indirect Costs is not allowed.

CREATION OF POSITIONS:

There are no new grant positions associated with this award.

ENCLOSED DOCUMENTS:

Attachment 1 - Supplemental Appropriation Resolution AS 19204

Attachment 2 - Letter of Intent – Assurances for Preschool Development Grant Birth-Five Pilots

Attachment 3 - Summary of Proposed Grant Funding

STAFF:

Tisha Deeghan, Deputy County Executive

Nannette M. Bowler, Director, Department of Family Services

Anne-Marie D. Twohie, Director, Office for Children, Department of Family Services

SUPPLEMENTAL APPROPRIATION RESOLUTION AS 19204

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Government Center at 12000 Government Center Parkway, Fairfax Virginia on March 5, 2019, at which a quorum was present and voting, the following resolution was adopted:

BE IT RESOLVED by the Board of Supervisors of Fairfax County, Virginia, that in addition to appropriations made previously for FY 2019, the following supplemental appropriation is authorized and the Fiscal Planning Resolution is amended accordingly:

Appropriate to:

Fund: 500-C50000, Federal-State Grant Fund

Agency: G6767, Department of Family Services \$393,375

Grants: 1670093-2019, Preschool Development Grant Pilot Initiative

Reduce Appropriation to:

Agency: G8787, Unclassified Administrative Expenses \$393,375

Fund: 500-C50000, Federal-State Grant Fund

Source of Funds: Virginia Early Childhood Foundation, \$393,375

A Copy - Teste:

Catherine A. Chianese
Clerk to the Board of Supervisors



Assurances for Preschool Development Grant Birth-Five Pilots

Virginia's federal Preschool Development Grant Birth-Five (PDG B-5) provides the opportunity for mixed-delivery grantees to receive additional funding, resources and support to unify and strengthen their birth to five early childhood care and education systems. With the ultimate goal of improving kindergarten readiness, grantees will be expected to build relationships with all publicly-funded programs – family day homes, child care centers, preschools (including faith-based), Head Start and school based pre-K – in order to measure and increase access and quality.

As described in the assurances below, each community will be asked to complete activities related to three areas: 1) building relationships; 2) measuring and increasing access; and 3) measuring and strengthening quality. In return, communities will receive funding, technical assistance and other resources from the state, and communities' leaders and teachers will be eligible for direct financial incentives. These efforts should help increase local engagement and participation, build capacity and lay the foundation for continuous improvement across all publicly-funded programs in their system. Lastly, these communities will serve as models for the Commonwealth, helping to shape policy and practice as the state moves forward.

Please see funding and other resources schedule (Attachment A) which is based on available funding and estimate of the number of publicly-funded sites and classrooms. For guidance on how funds may be used, please see Budget Guidance (Attachment B).

Required Activities of Mixed Delivery Pilots:

As fiscal agent for the mixed delivery grant, I understand that my community/region will receive supplemental funding as part of the Preschool Development Grant Birth to Five (PDG B-5) to engage families, share best practices and improve quality. Lessons learned from the efforts in my community/region will inform the statewide efforts. In turn, my organization will comply with all guidelines and requirements prescribed by the Virginia Early Childhood Foundation (VECF), Virginia Department of Education (VDOE) and Virginia Department of Social Services (VDSS) and that my organization will:

1. Build Relationships:

- ☐ Structure or refine vehicles for communicating with all program partners that serve children birth to five out of the home.
- ☐ Convene all program partners that serve children birth to five out of the home, ensuring at a minimum that all publicly-funded program leaders (site directors) participate on a quarterly basis (monthly meetings recommended). This includes:
 - All early childhood classrooms within the school division including VPI, VPI+, early childhood special education and Title I classrooms,
 - All Head Start and Early Head Start programs, and
 - All sites, including family day homes, child care centers, religious exempt and certified preschools, that are considered Department of Social Services child care subsidy vendors (<https://www.dss.virginia.gov/facility/search/cc.cgi>).
 - Communities are strongly encouraged to include other key partners including privately-funded preschools and child care centers, early intervention programs, home visiting programs, resource and referral, infant and toddler mental health and other professional development programs.

- ☐ Design and implement a process for communicating regularly with all sites (e.g. email list serve, phone tree, web page, etc.).
- ☐ Ensure all partners gather, submit to state and use data on access, enrollment and quality. This will involve ensuring partners participate in training, gather and submit data on time and in an accurate manner to the state using new data system and following up as necessary when requested by the state.
- ☐ Ensure all required community-wide activities are completed including but not limited to self-assessments, family focus groups and family or teacher surveys.
- ☐ Establish and codify local structures (e.g., by-laws) for equitable and collaborative decision-making about responsibilities and funding.
- ☐ Engage other community partners who can help further the work including but not limited to business, local government, etc. and pursue public-private partnerships.
- ☐ *State will provide templates and technical assistance, as needed, throughout the process.*

2. Increase Access:

- ☐ Count all sites that serve children birth to five, ensuring at a minimum all publicly-funded sites are inventoried and assigned site code. Within these sites, count all classrooms and classify what age(s) are served in each classroom and assigned code at classroom level. Results must be entered into state database.
- ☐ Count all children served by age at a particular point in time (guidance provided by VECF), ensuring at a minimum all publicly-funded children are counted. As part of the unduplicated child count, partners must ensure that all children with special needs or receiving early intervention services are included as well as Dual Language Learners, Homeless and Migrant children. Results must be entered into state database.
- ☐ Conduct a self-assessment of current enrollment and family engagement processes, in which all program partners come together to evaluate the strengths and challenges of their enrollment system(s) including points of entry, eligibility, application, waitlist, matching and transition to school entry processes. State will provide template which must be signed by all partners and submitted back to state.
- ☐ Assess unmet need: compare child count data to live births and Medicaid data, thus establishing upper boundaries for unmet need by age birth to five. Use family focus groups, family survey or other tools with partners to estimate other aspects of unmet need including current unmet demand for services (e.g., waitlist) as well as families who need care during non-traditional hours. State will provide template and technical assistance.
- ☐ Complete fiscal map of public funds used locally – federal, state and local – as well as private contributions or match for slots. Identify barriers to integrating and maximizing funding. State will provide template and technical assistance.
- ☐ *Using all of the above, produce and begin to implement a local plan for coordinating enrollment and increasing access birth to five. State will provide template and technical assistance.*

3. Strengthen Quality:

- ☐ Assess training, instructional materials and professional development needs of all partners.
- ☐ Use mixed delivery and PDG B-5 funding to provide high quality training, materials and professional development to participating leaders and teachers. State will provide a “short list” of options and communities will have to submit a plan and budget that is subject to state approval. Training, materials and professional development should focus on curriculum, teacher-child interactions and instruction or environment. *At a minimum, all leaders and teachers should receive foundational training (but not required to become reliable) on CLASS® prior to observations being conducted.*
- ☐ Using inventory of sites and classrooms, develop a plan to observe all classrooms and provide feedback using the CLASS® observation tool at least twice a year.
- ☐ Following an observation protocol provided by the state, observe all classrooms using the CLASS® and provide feedback to teachers, and enter results into state database.

Attachment 2

- ☐ Work with partners to produce classroom quality inventory including capturing key demographic information about all leaders, teachers and classrooms, including leader and teacher credentials, ratios, curriculum used, assessment used, and enter results into state database.
- ☐ Complete fiscal map of public funds used locally – federal, state and local – as well as private contributions or match for professional development or improving quality. Identify barriers to integrating and maximizing funding. *State will provide template and technical assistance.*
- ☐ *Using all of the above, produce and begin to implement a local plan for strengthening quality across all classrooms that serve children birth to five. State will provide template and technical assistance.*

By my signature below, I am indicating agreement with all of the aforementioned requirements.

Signature of Leader/Chief Administrator

Grantee Agency

Title

Email Address

Printed Name

Telephone Number

Comments:

Please sign and return form NO LATER THAN February 15, 2019. If you determine that your community will not participate at this time, please also indicate that decision to us NO LATER THAN February 15, 2019.

Please note that Grantee/Lead Agencies are NOT required to obtain signatures from all partners at this time. However, please reach out to and communicate expectations to all partners by February 28 so they can, in turn, communicate to leaders and teachers.

ATTACHMENT A: Funding and Other Resources

Potential funding allocations are estimates based on total amount available divided according to approximate proportion of sites and classrooms, based on Virginia Preschool Initiative, child care subsidy and full footprint with the exception of Fairfax County.

Community	Site and Classroom-Level Funding	Focus Group Funding	Community Total
Alexandria	\$265,285	\$3,250	\$268,535
Charlottesville-Albemarle	\$140,445	\$3,250	\$143,695
Chesterfield	\$171,655	\$3,250	\$174,905
Fauquier County	\$62,420	\$3,250	\$65,670
Harrisonburg	\$78,025	\$3,250	\$81,275
New River Valley (Montgomery, Pulaski, Giles, Floyd)	\$124,840	\$3,250	\$128,090
Rappahannock County	\$15,605	\$3,250	\$18,855
Roanoke (Craig, Salem, Botetourt, Franklin, Roanoke City & Co)	\$421,335	\$3,250	\$424,585
Southwest VA (Bristol, Carroll, Russell, Tazewell and Wythe)	\$156,050	\$3,250	\$159,300
Spotsylvania/Stafford Counties	\$124,840	\$3,250	\$128,090
Fairfax County*	\$390,125	\$3,250	\$393,375

In addition to funding, the state will provide ongoing resources and supports to pilot communities. Led by VECF, in partnership with VDOE and UVA, the state will provide to communities:

- VECF staff positions supporting community pilot efforts;
- Funding for key activities and to support classrooms (separate from leader/teacher incentives);
- Templates for expected activities including but not limited to site/classroom counts, quality inventory, enrollment self-assessment, unmet need assessment, fiscal map, access and enrollment plan and quality improvement plan;
- Tools such as guides or resources (e.g. professional development guide);
- Technical assistance including quarterly in-person sessions, webinars and office hours;
- A statewide “branding” campaign with consistent awareness materials; and
- Data System based off PALS system that can be used to capture key access and quality elements along with data system training and technical assistance for partners.

State will also use up to \$4 million in PDG B-5 funds to provide individual incentives to participating leaders and teachers to help inspire more participation, increase the success of implementation and reduce turnover.

- Current estimates would provide up to \$2080 per leader or teacher, roughly \$1 more an hour for a full work year.
- Details of the incentive program are still being worked out but communities should be prepared to support leaders and teacher to register this spring.

ATTACHMENT B: Budget Guidance

Lead agencies are expected to use the PDG B-5 funding to complete the required activities listed above to build relationships, increase access and strengthen quality. Lead Agencies have discretion in how to use the funding to support and carry out its responsibilities. Generally, funds may be used for full or part time staff or professional services to ensure that counting activities, *CLASS*® observations, and other required activities are carried out. Funding should also be used to support the improvement of program quality, where needed, if all other lead agency expectations are being met. See chart below for examples of how funding may be used to support required activities.

Funding cannot be used to increase slots within programs, for construction or facility remodeling, nor for fund raising or purchase of real property. Indirect costs are not allowed. Federal grant awards will not allow reimbursement of pre-award costs. Funds unexpended at end of year will revert to the state.

This chart provides several examples for each activity. Please note that these are **ONLY** examples; communities are not expected to use the funding in all of the ways listed below. It is also expected that none of the activities alone would require a full-time person; rather each would require some portion of staff or consultant time for a specific period. Many of these activities could be completed by one full time staff person in larger communities or regions while other counties may want to divide the work over several existing staff, using the funds to adjust salary cost allocations.

Required Activity	Potential Use(s) of Funding
<ul style="list-style-type: none"> Convening all publicly-funded partners, engaging other partners, and developing communication process(es) and structures for working together 	<ul style="list-style-type: none"> Percentage of a staff person to do outreach, set dates/agendas, manage logistics, and communicate one-on-one with partners as needed Travel costs to visit and/or check in on sites Website or shared file account (e.g. Dropbox)
<ul style="list-style-type: none"> Ensure all partners gather, submit to state and use data on access, enrollment and quality 	<ul style="list-style-type: none"> Percentage of a staff person to communicate with partners, track progress, follow up with partners and liaise with state if partners are experiencing difficulty
<ul style="list-style-type: none"> Ensure all required community-wide activities are completed including but not limited to self-assessments, family focus groups and family or teacher surveys. 	<ul style="list-style-type: none"> Percentage of a staff person to communicate with partners, track progress, follow up with partners and liaise with state if partners have difficulty
<ul style="list-style-type: none"> Count all sites, classrooms, kids, etc. and ensure results are entered into state database 	<ul style="list-style-type: none"> Percentage of a staff person to communicate with partners, track progress, follow up with partners and liaise with state if partners have difficulty
<ul style="list-style-type: none"> Conduct a self-assessment of current enrollment and family engagement processes, assess unmet need and complete fiscal map, all using templates and tools provided by the state 	<ul style="list-style-type: none"> Percentage of a staff person or consultant to learn template/tool, set dates, manage logistics, conduct activities and submit materials to the state
<ul style="list-style-type: none"> Assess training, instructional materials and professional development needs of all partners. Use mixed delivery and PDG B-5 funding to provide high quality training, materials and professional development to participating leaders 	<ul style="list-style-type: none"> Percentage of a staff person to conduct assessment, coordinate budget, communicate with partners, submit materials to the state and oversee implementation Cost of foundational training for <i>CLASS</i>® for leaders and teachers Cost of coaching and related supports for leaders and teachers as they receive <i>CLASS</i>® observations and feedback

and teachers. <i>At a minimum, all leaders and teachers should receive foundational training on CLASS® <u>prior</u> to observations being conducted.</i>	<ul style="list-style-type: none"> • Stipends to support training participants after-hours or pay for substitutes so participants can attend during work hours • High quality curriculum materials for sites that are NOT using a quality curriculum with training and/or coaching to support implementation • Other training, coaching and materials costs as approved by state
<ul style="list-style-type: none"> • Develop a plan to AND then observe all classrooms using the CLASS® and provide feedback to teachers, and enter results into state database. 	<ul style="list-style-type: none"> • Percentage of a staff person to develop plan/schedule, communicate with partners, submit materials to the state and oversee implementation • Cost of training local leaders such as child care directors, Head Start directors or elementary school principals to be CLASS®-reliable observers OR cost of contracting with local observers to conduct CLASS® observations and provide feedback to teachers
<ul style="list-style-type: none"> • Complete fiscal map of public funds 	<ul style="list-style-type: none"> • Percentage of a staff person or consultant to learn template/tool, set dates, manage logistics, conduct activities and submit materials to the state

PRESCHOOL DEVELOPMENT GRANT BIRTH-FIVE PILOT INITIATIVE SUMMARY OF PROPOSED GRANT FUNDING

Grant Title:	Preschool Development Grant Birth-Five Pilot Initiative
Funding Agency:	Virginia Early Childhood Foundation
Applicant:	Department of Family Services, Office for Children
Partner:	Publicly funded early childhood programs located in centers, family child care homes and Fairfax County Public Schools
Purpose of Grant:	The purpose of this grant is to provide resources and supports to unify and strengthen birth to five early childhood systems in Fairfax County with the ultimate goal of improving kindergarten readiness.
Funding Amount:	\$393,375; There is no Local Cash Match associated with this award.
Proposed Use of Funds:	Activities funded will include: building relationships with families and early childhood programs, measuring and increasing access to high-quality early childhood programs and measuring and strengthening quality.
Target Population:	Early childhood programs that receive public funds. Participating programs will be located in centers, family child care homes and Fairfax County Public Schools.
Performance Measures:	<p>The success of this project will be based on the successful development and implementation of:</p> <ul style="list-style-type: none"> • A plan for communicating regularly with participating sites; • A plan for coordinating enrollment and increasing access to high-quality early childhood programs, birth to five; and • A plan for strengthening quality across settings that serve children birth to five.
Grant Period:	December 31, 2018 – December 31, 2019

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ADMINISTRATIVE - 9

Authorization to Advertise Publication of the FY 2020 Budget and Required Tax Rates, the FY 2020 Effective Tax Rate Increase, and the Advertised Capital Improvement Program for Fiscal Years 2020-2024 (With Future Fiscal Years to 2029)

ISSUE:

Board authorization to advertise the FY 2020 County budget, Capital Improvement Program, and the tax rates that are proposed to support the FY 2020 budget. Advertising these rates will not prevent the Board from lowering any advertised tax rate, but higher tax rates could not be imposed without advertising such rates.

RECOMMENDATION:

The County Executive recommends that the Board authorize advertisement of a brief synopsis of the FY 2020 Budget and a real estate tax rate for FY 2020 of \$1.15 per \$100 of assessed value. The FY 2020 Advertised Budget Plan is balanced at the existing Real Estate Tax rate of \$1.15 per \$100 of assessed value. Advertising an increase in the rate does not prevent the Board from lowering any advertised tax rate, but a higher tax rate cannot be imposed without advertising the higher rate.

Virginia Code Section 58.1-3321 requires that a separate public hearing be held on the effective tax rate if the reassessment of real property results in an increase of one percent or more in the total real property tax levied. The public hearing on the effective tax rate must be advertised at least thirty days before the date of the hearing. The total increase in assessed value of existing property is expected to be 2.45 percent. In FY 2020, the assessed value of residential real property is expected to increase by 2.36 percent and non-residential property is expected to increase by 2.71 percent.

In addition, the County Executive recommends that the Board authorize advertisement of a public hearing on the FY 2020 – FY 2024 Advertised Capital Improvement Program (With Future Fiscal Years to 2029).

Please note that the draft tax resolution to be advertised includes the following recommendations regarding rates for FY 2020.

The following rate is recommended to increase:

Refuse Collection Services assessment from \$350 per household unit to \$385 per household unit.

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The following rate is recommended to decrease:

- Leaf Collection Districts from \$0.013 per \$100 assessed value to \$0.012 per \$100 assessed value.

The following rates are not recommended to change:

- Reston Community Center at \$0.047 per \$100 assessed value.
- McLean Community Center at \$0.023 per \$100 assessed value.
- Burgundy Village Community Center at \$0.02 per \$100 assessed value.
- Commercial and Industrial Tax for Transportation at \$0.125 per \$100 assessed value.
- Special service district for pest infestations at \$0.0010 per \$100 assessed value.
- Rail to Dulles Phase I Transportation Improvement District Levy at \$0.13 per \$100 assessed value.
- Rail to Dulles Phase II Transportation Improvement District Levy at \$0.20 per \$100 assessed value.
- Reston Transportation Service District at \$0.021 per \$100 of assessed value.
- Route 28 Taxing District Levy at \$0.18 per \$100 assessed value.
- Tysons Transportation Service District at \$0.05 per \$100 assessed value.
- I-95 Ash Disposal Fee at \$26.50 per ton.
- Stormwater Service District Levy at \$0.0325 per \$100 assessed value.
- EMS Transport Fee: (1) a service fee of \$500 for Basic Life Support transport (BLS), (2) \$650 for Advanced Life Support, level 1 transport (ALS1), (3) \$800 for Advanced Life Support, level 2 transport (ALS2), and (4) \$12.00 per mile for ground transport mileage.

Also included in the brief synopsis of the FY 2020 budget advertisement is information as it relates to the Personal Property Tax Relief Act (PPTRA) and the percentage of

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state “Car Tax” subsidy on qualifying personal property tax levy. On November 21, 2005, as part of Action Item 3, the Board of Supervisors adopted a resolution to implement the state “Car Tax” changes found in the Executive Amendments to the 2004-2006 Biennial Budget, specifically state Budget Item 503(E) of the Central Appropriations Act, in accordance with the requirements set forth in Virginia Code Sections 58.1-3524(C)(2) and 58.1-3912(E), as amended by Chapter 1 of the Acts of Assembly (2004 Special Session 1) and as set forth in Item 503(E)(Personal Property Tax Relief Program) of Chapter 951 of the 2005 Acts of Assembly.

Beginning in tax year 2006, the state “Car Tax” subsidy on qualifying vehicles was “capped” to a statewide total of \$950 million. Based on the final report from the state Auditor of Public Accounts, dated February 2006, Fairfax County’s share of this \$950 million was fixed at 22.2436 percent, or \$211,313,944.16. The annual subsidy is frozen at this amount and is factored into the FY 2020 Advertised Budget Plan.

Consistent with the November 21, 2005, Board resolution, the state “Car Tax” funding will provide a 100 percent subsidy of the tax year 2019 levy for qualifying vehicles valued at \$1,000 or less and a 100 percent subsidy of the tax year 2019 levy on the value up to \$20,000 for vehicles leased by a qualified military service member and/or spouse. Furthermore, the state “Car Tax” funding is estimated to provide a 59.0 percent subsidy of the tax year 2019 levy for all other qualifying vehicles on the value up to \$20,000.

A separate public hearing on the effective tax rate will be held on Tuesday, April 9, 2019, as required by Virginia Code Section 58.1-3321. In addition, public hearings on the FY 2020 budget, the advertised capital improvement plan (CIP) and proposed tax rates for tax year 2019 will be held on April 9-11, 2019.

Please note that a separate item recommending Board authorization to advertise public hearings for sewer rate revision notices is included in the March 5, 2019, Board package. The sewer rate revision notices authorize the increase in the Base Charge from \$30.38 per quarter, totaling \$121.52 per year, to \$32.91 per quarter, totaling \$131.64 per year. The Sewer Service Charge will increase from \$7.00 per 1,000 gallons of water consumption to \$7.28 per 1,000 gallons of water consumption. The Sewer Availability Fee will increase from \$8,100 to \$8,340 per new home being constructed. A separate public hearing on sewer rate revisions will be held on Tuesday, April 9, 2019.

In addition, a separate item recommending Board authorization to advertise a public hearing to amend Appendix I of the Code of the County of Fairfax is included in the March 5, 2019, Board package. The proposed changes will expand the scope of activities in Fund 40080, Integrated Pest Management Program, to allow service district funds to be used for the remediation and removal of hazardous trees that pose a threat

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to public safety and have been damaged by forest pests. A separate public hearing on the requested code change will be held on Tuesday, April 9, 2019, at 2:30 p.m.

TIMING:

Action must be taken on March 5, 2019, in order to provide adequate time to include the effective tax rate advertisement, if required, in the newspaper no later than March 8, 2019, to meet advertising legal requirements and ensure as broad a circulation as possible.

BACKGROUND:

Virginia Code Section 15.2-2506 specifies the time frame within which the advertisements must be published. That section requires the publication of a brief synopsis of the budget at least seven days prior to the date set for public hearing.

Virginia Code Section 58.1-3321 also specifies advertisement requirements for an increase in the real estate tax levy for existing property based on an equalization increase greater than one percent. The assessed value of existing real estate is projected to increase 2.45 percent due to equalization, which exceeds the one-percent threshold for that statute. That section requires the publication of a notice in the paper at least thirty days prior to the date set for the public hearing and a separate public hearing is required to consider the effective tax increase.

Therefore, this item requests Board authorization to advertise the following items in accordance with the notification requirements listed above.

- A brief synopsis of the FY 2020 Budget, including information as it relates to the impact of the Personal Property Tax Relief Act (PPTRA) on the percentage of state “Car Tax” subsidy on qualifying personal property tax levy
- Proposed Tax Rates for tax year 2019
- The effective tax rate notice required by Virginia Code Section 58.1-3321
- Notice of public hearings on the FY 2020 – FY 2024 Advertised Capital Improvement Program (With Future Fiscal Years to 2029)

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In order to meet these legal requirements and hold to the scheduled public hearing dates, the advertisements must be approved no later than March 5, 2019. This will permit the County to adhere to the following budget schedule:

- Public Hearing on the FY 2020 Effective Tax Rate – April 9, 2019. Please note the Public Hearing on the Effective Tax Rate is separate from the Public Hearings on the Budget. However, citizens may speak on the Effective Tax Rate during the Public Hearings on the FY 2020 Budget.
- Public Hearings on the FY 2020 Budget, the FY 2020 – FY 2024 Advertised Capital Improvement Program (With Future Fiscal Years to 2029) and proposed FY 2020 Tax Rates – April 9-11, 2019.
- Public Hearings on the *FY 2019 Third Quarter Review* – April 9-11, 2019.
- FY 2020 Budget Mark-up and Board Adoption of the *FY 2019 Third Quarter Review* – April 30, 2019.
- Board Adoption of Fiscal Plan, Tax Levies, and Appropriation Resolution – May 7, 2019.
- School transfer set (required by May 15 or 30 days after the State approves aid to schools).

In addition, it should be noted that during FY 2020 the allowable asset limits and income limits associated with the Real Estate Tax Relief Program for the Elderly and Disabled are maintained at the FY 2019 level. In FY 2020, the income limits of the Tax Relief program provide 100 percent exemption for elderly and disabled taxpayers with incomes up to \$52,000; 50 percent exemption for eligible applicants with income between \$52,001 and \$62,000; and 25 percent exemption if income is between \$62,001 and \$72,000. The allowable asset limit in FY 2019 is \$340,000 for all ranges of tax relief and that limit does not include the value of the residence of the applicant and one acre of land on which the residence is located. In addition, veterans who have a 100 percent permanent and total disability related to military service, or their surviving spouse, are eligible for full Real Estate Tax relief regardless of income and assets.

FISCAL IMPACT:

The FY 2020 Real Estate Tax rate of \$1.15 per \$100 of assessed value results in the revenue projections outlined in the FY 2020 Advertised Budget Plan. Each penny on the Real Estate Tax rate equates to \$25,525,401 in General Fund revenue.

Board Agenda Item
March 5, 2019

ENCLOSED DOCUMENTS:

Attachment I - Brief Synopsis of the FY 2020 Budget
Attachment II - Draft Resolution Adopting Fairfax County Tax Rates for FY 2020
Attachment III - Notice of a Proposed Tax Increase for FY 2020

STAFF:

Bryan J. Hill, County Executive
Joe Mondoro, Chief Financial Officer
Christina Jackson, Deputy Director, Department of Management and Budget
Jaydeep Doshi, Director, Department of Tax Administration

ASSIGNED COUNSEL:

Patricia McCay, Senior Assistant County Attorney

**COMMONWEALTH OF VIRGINIA
COUNTY OF FAIRFAX**

In accordance with Virginia law, notice is hereby given that the Board of Supervisors of Fairfax County, Virginia, will meet in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on April 9 at 4:00 P.M. and April 10 and April 11 at 1:00 P.M. The purpose of these meetings shall be to consider the adoption of an FY 2020 County Budget and to consider such tax rate changes as described therein. A brief synopsis of the FY 2020 Advertised Budget Plan is shown below. Citizens may appear and be heard for and against the following estimates of revenues, expenditures, transfers and surpluses as contained in the FY 2020 Advertised Budget Plan and proposed tax rate changes. Fiscal Year 2020 begins on July 1, 2019, and ends on June 30, 2020.

At the same time, the Board of Supervisors will hear public testimony regarding proposed adoption of the FY 2020 – FY 2024 Advertised Capital Improvement Program (With Future Fiscal Years to 2029).

All persons wishing to present their views on these subjects may sign up to be placed on the Speakers List at www.fairfaxcounty.gov/bosclerk/speakers-form, call the Office of the Clerk to the Board at (703) 324-3151 to be placed on the Speakers List, or appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as other documents relating to the aforementioned subjects, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia.

Fairfax County supports the Americans with Disabilities Act by making reasonable accommodations for persons with disabilities. Open captioning will be provided in the Board Auditorium. For sign language interpreters or other accommodations, please call the Clerk's Office, (703) 324-3151, TTY 711 (Virginia Relay Center) no later than 48 hours before the public hearing. Assistive listening devices will be available at the meeting.

Copies of the FY 2020 Advertised Budget Plan and the FY 2020 – FY 2024 Advertised Capital Improvement Program (With Future Fiscal Years to 2029) are available on the Internet at www.fairfaxcounty.gov/budget.

Insert Tax Ad Expenditures Schedule HERE

FOOTNOTES

		Tax Required		
	Revenue Amount	2020 Rate	2019 Rate	2018 Rate
OTHER REAL ESTATE & PERSONAL PROPERTY TAX RATES				
PUBLIC SERVICE CORPORATIONS				
Equalized a	\$46,847,437	1.150	1.150	1.130
Vehicles b	312,276	4.57	4.57	4.57
OTHER				
Mining and Manufacturing Machinery and Tools (General Fund Revenue) b	1,395,031	4.57	4.57	4.57
Research and Development (General Fund Revenue) b	8,454	4.57	4.57	4.57
Antique Automobiles b	-	0.01	0.01	0.01
Mobile Homes a	143,069	1.150	1.150	1.130
Van Pools-Privately Owned Vans b	-	0.01	0.01	0.01
Motor Vehicles Owned by Members of a Volunteer Rescue Squad or Volunteer Fire Department b	-	0.01	0.01	0.01
Motor Vehicles Owned by Members of the Auxiliary Police b	-	0.01	0.01	0.01
Motor Vehicles Owned by Members of the Auxiliary Deputy Sheriff b	-	0.01	0.01	0.01
Homeowners Associations Furniture, office equipment and maintenance equipment b	-	0.01	0.01	0.01
Aircraft and Flight Simulators b	-	0.01	0.01	0.01
Motor Vehicles Specially Equipped to Provide Transportation to Physically Handicapped Individuals b	-	0.01	0.01	0.01
Boats b	-	0.01	0.01	0.01
Motor Vehicles Owned by Disabled Veterans b	-	0.01	0.01	0.01
Motor Vehicles Owned by Certain Qualifying Elderly and Disabled Individuals b	-	0.01	0.01	0.01
Special Service District for Pest Infestations i	2,544,264	0.001	0.001	0.001

- a. Real Estate Tax Rate per \$100 of assessed value. **The FY 2020 Advertised Budget Plan proposes a tax rate of \$1.150 per \$100 of assessed value. The real estate tax bill for the typical residential homeowner would increase by \$149 in FY 2020 with a real estate tax rate of \$1.150 per \$100 of assessed value. Advertising an increase in the rate does not prevent the Board from lowering any advertised tax rate, but a higher tax rate cannot be imposed without advertising the higher rate.**
- b. Personal Property Tax Rate per \$100 of assessed value (excluding household furnishings). Tax collections, as a percentage of total taxes levied, are estimated as follows:
 - 10001 General Fund - Real Estate, 99.70 percent; Personal Property, 98.0 percent
 - Sanitary District - Refuse Assessments, 100 percent.
- c. Percentage of state "Car Tax" subsidy on qualifying personal property tax levy. On November 21, 2005, as part of Action Item 3, the Board of Supervisors adopted a resolution to implement the state "Car Tax" changes found in the Executive Amendments to the 2004-2006 Biennial Budget, specifically state Budget Item 503(E) of the Central Appropriations Act, in accordance with the requirements set forth in Virginia Code §§ 58.1-3524(C)(2) and 58.1-3912(E), as amended by Chapter 1 of the Acts of Assembly (2004 Special Session 1) and as set forth in Item 503(E)(Personal Property Tax Relief Program) of Chapter 951 of the 2005 Acts of Assembly.

Beginning in tax year 2006, the state "Car Tax" subsidy on qualifying vehicles was "capped" to a statewide total of \$950 million. Based on the final report from the state Auditor of Public Accounts, dated February 2006, Fairfax County's share of this \$950 million was fixed at 22.2436%, or \$211,313,944.16. The annual subsidy is frozen at this amount and is factored into the FY 2020 Advertised Budget Plan.

Consistent with the November 21, 2005, Board resolution, the state "Car Tax" funding will provide a 100% subsidy of the tax year 2019 levy for qualifying vehicles valued at \$1,000 or less and a 100% subsidy of the tax year 2019 levy on the value up to \$20,000 for vehicles leased by a qualified military service member and/or spouse. Furthermore, the state "Car Tax" funding is estimated to provide a 59.0% subsidy of the tax year 2019 levy for all other qualifying vehicles on the value up to \$20,000.

- d. Fund 10001, General Fund, does not reflect carryover of FY 2018 Audit Adjustment Reserve of (\$1,938,970), Reserve for Potential FY 2019 One-Time Requirements of (\$4,605,310), and FY 2019 Mid-Year Revenue Adjustment Reserve of (\$26,470,333) from FY 2019 to FY 2020.
- e. Real Estate revenue reflected in Fund 30300, The Penny for Affordable Housing Fund, reflects the Board of Supervisors policy to allocate the approximate value of one penny on the real estate tax rate to this program. The FY 2020 Advertised Budget Plan includes the allocation of one-half penny on the real estate tax rate to this fund.
- f. Additional tax assessment per \$100 of assessed value for commercial and industrial property in the County to support transportation.
- g. Operating costs and debt service - Community Center. Tax Rate per \$100 of assessed value.
- h. Utilities and other operating costs - Community Center. Tax Rate per \$100 of assessed value.
- i. Additional special tax levy of real estate within Fairfax County, but exclusive of the Lake Barcroft Water Improvement District to control infestations of pests. Tax Rate per \$100 of assessed value.
- j. Additional special tax levy of real estate to support operating and construction requirements for the stormwater management program. Tax Rate per \$100 of assessed value.
- k. Additional tax assessment per \$100 of assessed value for commercial and industrial property for the Phase I Dulles Rail Transportation Improvement District.
- l. Additional tax assessment per \$100 of assessed value for commercial and industrial property for the Phase II Dulles Rail Transportation Improvement District.

- m. Leaf Collection rate per \$100 of assessed value. (See districts listed below)

Leaf Collection:

Small District 2 Braddock
 Local District 1A11 Dranesville
 Local District 1A21 Dranesville
 Local District 1A22 Dranesville
 Local District 1A61 Dranesville
 Local District 1B1 Dranesville
 Local District 1E Dranesville
 Small District 3 Dranesville
 Small District 7 Dranesville
 Small District 8 Dranesville
 Small District 10 Dranesville
 Small District 12 Dranesville
 Small District 15 Dranesville
 Local District 1B Lee
 Local District 1C Lee
 Local District 1D Lee
 Local District 1E Lee

Small District 1 Mason
 Local District 1A Mason
 Small District 2 Mason
 Small District 4 Mason
 Local District 7A Mason
 Small District 9 Mason
 Small District 10 Mason
 Local District 1A Mount Vernon
 Local District 1B Mount Vernon
 Local District 1C Mount Vernon
 Local District 1D Mount Vernon
 Local District 1E Mount Vernon
 Small District 1 Providence
 Small District 2 Providence
 Small District 4 Providence
 Small District 6 Providence
 Small District 7 Providence
 Small District 8 Providence

- n. Refuse Collection assessment - the base annual charge for refuse collection service to be added to the regular real estate tax bill. (See districts listed below)

Refuse Service:

Small District 2 Braddock
 Small District 3 Braddock
 Small District 2 Hunter Mill
 Small District 3 Hunter Mill
 Local District 5A Hunter Mill
 Local District 1A1 Dranesville
 Local District 1A2 Dranesville
 Local District 1A3 Dranesville
 Local District 1A4 Dranesville
 Local District 1A5 Dranesville
 Local District 1A6 Dranesville
 Local District 1A8 Dranesville
 Local District 1A9 Dranesville
 Local District 1A11 Dranesville
 Local District 1A12 Dranesville
 Local District 1A21 Dranesville
 Local District 1A22 Dranesville
 Local District 1A61 Dranesville
 Local District 1B Dranesville
 Local District 1B1 Dranesville
 Local District 1B2 Dranesville
 Local District 1E Dranesville
 Small District 3 Dranesville
 Small District 4 Dranesville
 Small District 6 Dranesville
 Small District 7 Dranesville
 Small District 8 Dranesville
 Small District 9 Dranesville
 Small District 10 Dranesville
 Small District 11 Dranesville
 Small District 12 Dranesville
 Small District 13 Dranesville
 Small District 14 Dranesville

Small District 15 Dranesville
 Small District 1 Lee
 Local District 1A Lee
 Local District 1B Lee
 Local District 1C Lee
 Local District 1D Lee
 Local District 1E Lee
 Small District 2 Lee
 Small District 3 Lee
 Small District 4 Lee
 Small District 1 Mason
 Local District 1A Mason
 Local District 1B Mason
 Local District 1C Mason
 Local District 1D Mason
 Local District 1F Mason
 Small District 2 Mason
 Small District 3 Mason
 Small District 4 Mason
 Small District 5 Mason
 Small District 6 Mason
 Small District 7 Mason
 Local District 7A Mason
 Small District 8 Mason
 Small District 9 Mason
 Small District 10 Mason
 Small District 11 Mason
 Small District 1 Mount Vernon
 Local District 1A Mount Vernon
 Local District 1B Mount Vernon
 Local District 1C Mount Vernon
 Local District 1D Mount Vernon
 Local District 1E Mount Vernon
 Small District 2 Mount Vernon

ATTACHMENT I

Refuse Service (continued):

Local District 2A Mount Vernon
Local District 2B Mount Vernon
Small District 1 Providence
Local District 1A Providence
Local District 1B Providence
Small District 3 Providence
Small District 4 Providence
Small District 6 Providence

Small District 7 Providence
Small District 8 Providence
Small District 9 Providence
Small District 11 Providence
Small District 12 Providence
Small District 13 Providence
Small District 4 Springfield
Small District 6 Springfield

- o. Per ton refuse disposal fee charged to County refuse collectors, other jurisdictions, and private haulers.
- p. Includes revenues from user fees charged at the Recycling and Disposal Center. Information regarding the schedule of fees is available from the Department of Public Works and Environmental Services (DPWES) Solid Waste Management Program at 12000 Government Center Parkway, Suite 458, Fairfax, Virginia, 22035 or online at www.fairfaxcounty.gov/dpwes. Residents who use the Recycling and Disposal Center are charged for disposal of waste based on weight and category of waste. There are different fees for disposal of brush, yard waste, white goods, tires, and other materials.
- q. Per ton ash disposal fee charged to the County and participating jurisdictions.
- r. Additional tax assessment per \$100 of assessed value for the Tysons Service District.
- s. Additional tax assessment per \$100 of assessed value for the Reston Service District.
- t. Fund S10000, Public School Operating, reflects the proposed Transfer Out to Fund 20000, Consolidated Debt Service, as included in the FY 2020 Advertised Budget Plan, which is currently \$600 less than the amount shown in the School Board's Advertised Budget. Final adjustments will be reflected at the *FY 2019 Carryover Review*.
- u. Fund S40000, Public School Food and Nutrition Services, assumes carryover of General Reserve of \$19,334,908 from FY 2019 to FY 2020.
- v. Fund S50000, Public School Grants & Self Supporting Programs, assumes carryover of Summer School Reserve of \$3,423,631 from FY 2019 to FY 2020.
- w. Fund S60000, Public School Insurance, assumes carryover of Allocated Reserve of \$5,948,424 from FY 2019 to FY 2020.
- x. Fund S62000, Public School Health and Flexible Benefits, assumes carryover of premium stabilization reserve of \$88,258,897 from FY 2019 to FY 2020.
- y. Sewer service rate per 1,000 gallons of water.
- z. Sewer availability fee for single family homes.
- aa. Sewer service per bill base charge.
- ab. Additional tax assessment per \$100 of assessed value for road improvements to State Route 28.

TAX REQUIRED								OTHER RESOURCES				
Fund	EXPENDITURES	TRANSFERS OUT	TOTAL EXPENDITURES & TRANSFERS OUT	AMOUNT	FY 2020 RATE	FY 2019 RATE	FY 2018 RATE	STATE AID	FEDERAL AID	OTHER RECEIPTS	TRANSFERS IN	APPROPRIATED FROM/(ADDED TO) SURPLUS
GOVERNMENTAL FUNDS												
General Fund Group												
10001 General Fund ¹	\$1,634,695,971	\$2,803,166,916	\$4,437,862,887	\$3,317,050,446	1.150 a 4.57 b	1.150 a 4.57 b	1.130 a 4.57 b	\$311,662,618 c	\$39,350,986	\$776,412,148	\$9,081,414	(\$15,694,725) d
10010 Revenue Stabilization	0	0	0	0				0	0	3,400,000	0	(3,400,000)
10020 Consolidated Community Funding Pool	11,698,785	0	11,698,785	0				0	0	0	11,698,785	0
10030 Contributory Fund	14,369,203	0	14,369,203	0				0	0	0	14,368,492	711
10040 Information Technology	1,650,000	0	1,650,000	0				0	0	200,000	1,450,000	0
Total General Fund Group	\$1,662,413,959	\$2,803,166,916	\$4,465,580,875	\$3,317,050,446				\$311,662,618	\$39,350,986	\$780,012,148	\$36,598,691	(\$19,094,014)
Debt Service Funds												
20000 Consolidated Debt Service	\$337,211,783	\$0	\$337,211,783	\$0				\$0	\$2,500,000	\$580,000	\$334,131,783	\$0
Capital Project Funds												
30000 Metro Operations and Construction	\$69,239,986	\$3,032,151	\$72,272,137	\$0				\$0	\$0	\$25,000,000	\$47,272,137	\$0
30010 General Construction and Contributions	22,018,691	0	22,018,691	0				0	0	4,575,000	17,443,691	0
30020 Infrastructure Replacement and Upgrades	0	0	0	0				0	0	0	0	0
30030 Library Construction	0	0	0	0				0	0	0	0	0
30040 Contributed Roadway Improvement	0	192,152	192,152	0				0	0	192,152	0	0
30050 Transportation Improvements	0	0	0	0				0	0	0	0	0
30060 Pedestrian Walkway Improvements	700,000	0	700,000	0				0	0	0	700,000	0
30070 Public Safety Construction	0	0	0	0				0	0	0	0	0
30080 Commercial Revitalization Program	0	0	0	0				0	0	0	0	0
30090 Pro Rata Share Drainage Construction	0	0	0	0				0	0	0	0	0
30300 The Penny for Affordable Housing	18,400,000	0	18,400,000	12,400,000 e				0	0	6,000,000	0	0
30310 Housing Assistance Program	0	0	0	0				0	0	0	0	0
30400 Park Authority Bond Construction	0	0	0	0				0	0	0	0	0
S31000 Public School Construction	202,818,308	0	202,818,308	0				0	0	181,483,205	21,395,392	(60,289)
Total Capital Project Funds	\$313,176,985	\$3,224,303	\$316,401,288	\$12,400,000				\$0	\$0	\$217,250,357	\$86,811,220	(\$60,289)
Special Revenue Funds												
40000 County Transit Systems	\$102,349,745	\$0	\$102,349,745	\$0				\$12,952,403	\$0	\$8,632,000	\$80,640,342	\$125,000
40010 County and Regional Transportation Projects	53,900,387	36,974,719	90,875,106	55,979,654	0.125 f	0.125 f	0.125 f	34,765,452	0	130,000	0	0
40030 Cable Communications	11,971,027	10,884,930	22,855,957	0				0	0	22,749,209	0	106,748
40040 Fairfax-Falls Church Community Services Board	180,455,089	0	180,455,089	0				11,886,443	4,208,641	18,918,278	145,441,727	0
40050 Reston Community Center	9,134,677	0	9,134,677	7,933,739	0.047 g	0.047 g	0.047 g	0	0	1,204,438	0	(3,500)
40060 McLean Community Center	6,139,100	0	6,139,100	4,763,798	0.023 g	0.023 g	0.023 g	0	0	1,375,302	0	0
40070 Burgundy Village Community Center	46,369	0	46,369	32,465	0.020 h	0.020 h	0.020 h	0	0	45,963	0	(32,059)
40080 Integrated Pest Management Program	3,302,224	141,000	3,443,224	2,544,264	0.001 i	0.001 i	0.001 i	0	0	7,691	0	891,269
40090 E-911	52,296,878	0	52,296,878	0				3,396,251	0	46,857,339	0	2,043,288
40100 Stormwater Services	80,829,210	1,125,000	81,954,210	81,954,210	0.0325 j	0.0325 j	0.0300 j	0	0	0	0	0
40110 Dulles Rail Phase I Transportation Improvement District	15,570,400	0	15,570,400	21,809,181	0.13 k	0.13 k	0.15 k	0	0	0	0	(6,238,781)
40120 Dulles Rail Phase II Transportation Improvement District	500,000	0	500,000	19,470,335	0.20 l	0.20 l	0.20 l	0	0	0	0	(18,970,335)
40125 Metrorail Parking System Pledged Revenues	10,676,724	0	10,676,724	0				0	0	10,753,408	0	(76,684)
40130 Leaf Collection	2,548,981	54,000	2,602,981	0	0.012 m	0.013 m	0.013 m	0	0	2,193,554	0	409,427
40140 Refuse Collection and Recycling Operations	18,695,338	494,000	19,189,338	0	385 n	350 n	345 n	120,000	0	18,815,224	0	254,114
40150 Refuse Disposal	55,807,582	626,000	56,433,582	0	68 o	66 o	64 o	0	0	55,891,862 p	0	541,720
40170 I-95 Refuse Disposal	7,585,670	186,000	7,771,670	0	26.50 q	26.50 q	25.50 q	0	0	9,793,250	0	(2,021,580)
40180 Tysons Service District	0	0	0	8,395,515	0.05 r	0.05 r	0.05 r	0	0	0	0	(8,395,515)
40190 Reston Service District	0	0	0	2,193,484	0.021 s	0.021 s	0.021 s	0	0	0	0	(2,193,484)
40300 Housing Trust	798,265	0	798,265	0				0	0	798,265	0	0
40330 Elderly Housing Programs	3,164,280	0	3,164,280	0				0	0	1,284,622	1,879,658	0
40360 Homeowner and Business Loan Programs	2,555,131	0	2,555,131	0				0	0	2,500,000	0	55,131
50000 Federal/State Grants	112,549,535	0	112,549,535	0				42,121,872	59,957,968	6,037,041	4,432,654	0
50800 Community Development Block Grant	5,574,509	0	5,574,509	0				0	5,574,509	0	0	0
50810 HOME Investment Partnerships Program	2,103,044	0	2,103,044	0				0	2,103,044	0	0	0

ATTACHMENT I

Fund	EXPENDITURES	TRANSFERS OUT	TOTAL EXPENDITURES & TRANSFERS OUT	TAX REQUIRED				OTHER RESOURCES					
				AMOUNT	FY 2020 RATE	FY 2019 RATE	FY 2018 RATE	STATE AID	FEDERAL AID	OTHER RECEIPTS	TRANSFERS IN	APPROPRIATED FROM/(ADDED TO) SURPLUS	
Special Revenue Funds (Cont.)													
S10000 Public School Operating ²	2,956,868,854	32,339,715	2,989,208,569	0				712,123,291	45,035,541	73,453,953	2,136,891,697	21,704,087 t	
S40000 Public School Food and Nutrition Services	104,653,289	0	104,653,289	0				1,448,618	41,067,420	42,802,343	0	19,334,908 u	
S43000 Public School Adult and Community Education	9,237,679	0	9,237,679	0				913,768	2,059,219	5,289,692	975,000	0	
S50000 Public School Grants & Self Supporting Programs	76,170,694	0	76,170,694	0				9,172,786	33,028,415	8,686,625	21,859,237	3,423,631 v	
Total Special Revenue Funds	\$3,885,484,681	\$82,825,364	\$3,968,310,045	\$205,076,645				\$828,900,884	\$193,034,757	\$338,220,059	\$2,392,120,315	\$10,957,385	
TOTAL GOVERNMENTAL FUNDS	\$6,198,287,408	\$2,889,216,583	\$9,087,503,991	\$3,534,527,091				\$1,140,563,502	\$234,885,743	\$1,336,062,564	\$2,849,662,009	(\$8,196,918)	
PROPRIETARY FUNDS													
Internal Service Funds													
60000 County Insurance	\$27,832,727	\$0	\$27,832,727	\$0				\$0	\$0	\$2,370,859	\$24,273,437	\$1,188,431	
60010 Department of Vehicle Services	86,099,424	0	86,099,424	0				0	0	81,852,466	0	4,246,958	
60020 Document Services Division	9,406,521	0	9,406,521	0				0	0	5,205,392	3,941,831	259,298	
60030 Technology Infrastructure Services	44,004,292	0	44,004,292	0				0	0	38,510,778	4,714,102	779,412	
60040 Health Benefits	190,604,037	0	190,604,037	0				0	0	192,669,307	0	(2,065,270)	
S60000 Public School Insurance	19,179,763	0	19,179,763	0				0	0	13,231,339	0	5,948,424 w	
S62000 Public School Health and Flexible Benefits	520,119,414	0	520,119,414	0				0	0	431,860,517	0	88,258,897 x	
Total Internal Service Funds	\$897,246,178	\$0	\$897,246,178	\$0				\$0	\$0	\$765,700,658	\$32,929,370	\$98,616,150	
Enterprise Funds													
69000 Sewer Revenue	\$0	\$229,000,000	\$229,000,000	\$0	7.28 y 8,340 z 32.91 aa	7.00 y 8,100 z 30.38 aa	6.75 y 8,100 z 27.62 aa	\$0	\$0	\$235,742,701	\$0	(\$6,742,701)	
69010 Sewer Operation and Maintenance	106,043,107	2,850,000	108,893,107	0				0	0	0	108,900,000	(6,893)	
69020 Sewer Bond Parly Debt Service	25,072,781	0	25,072,781	0				0	0	0	23,100,000	1,972,781	
69030 Sewer Bond Debt Reserve	0	0	0	0				0	0	8,500,000	0	(8,500,000)	
69040 Sewer Bond Subordinate Debt Service	25,783,174	0	25,783,174	0				0	0	0	22,000,000	3,783,174	
69300 Sewer Construction Improvements	75,000,000	0	75,000,000	0				0	0	0	75,000,000	0	
69310 Sewer Bond Construction	121,500,000	0	121,500,000	0				0	0	121,500,000	0	0	
Total Enterprise Funds	\$353,399,062	\$231,850,000	\$585,249,062	\$0				\$0	\$0	\$365,742,701	\$229,000,000	(\$9,493,639)	
TOTAL PROPRIETARY FUNDS	\$1,250,645,240	\$231,850,000	\$1,482,495,240	\$0				\$0	\$0	\$1,131,443,359	\$261,929,370	\$89,122,511	
FIDUCIARY FUNDS													
Custodial Funds													
70000 Route 28 Tax District	\$12,498,009	\$0	\$12,498,009	\$11,498,009	0.18 ab	0.18 ab	0.18 ab	\$0	\$0	\$1,000,000	\$0	\$0	
70040 Mosaic District Community Development Authority	5,534,213	0	5,534,213	5,534,213				0	0	0	0	0	
Total Custodial Funds	\$18,032,222	\$0	\$18,032,222	\$17,032,222				\$0	\$0	\$1,000,000	\$0	\$0	
Trust Funds													
73000 Employees' Retirement Trust	\$447,174,308	\$0	\$447,174,308	\$0				\$0	\$0	\$596,926,420	\$0	(\$149,752,112)	
73010 Uniformed Employees Retirement Trust	140,076,942	0	140,076,942	0				0	0	236,296,753	0	(96,219,811)	
73020 Police Retirement Trust	104,920,591	0	104,920,591	0				0	0	183,989,902	0	(79,069,311)	
73030 OPEB Trust	12,522,889	0	12,522,889	0				0	500,000	2,789,398	10,490,000	(1,256,509)	
S71000 Educational Employees' Retirement	217,169,771	0	217,169,771	0				0	0	407,351,975	0	(190,182,204)	
S71100 Public School OPEB Trust	23,975,500	0	23,975,500	0				0	0	34,017,012	0	(10,041,512)	
Total Trust Funds	\$945,840,001	\$0	\$945,840,001	\$0				\$0	\$500,000	\$1,461,371,460	\$10,490,000	(\$526,521,459)	
TOTAL FIDUCIARY FUNDS	\$963,872,223	\$0	\$963,872,223	\$17,032,222				\$0	\$500,000	\$1,462,371,460	\$10,490,000	(\$526,521,459)	
TOTAL ALL FUNDS	\$8,412,804,871	\$3,121,066,583	\$11,533,871,454	\$3,551,559,313				\$1,140,563,502	\$235,385,743	\$3,929,877,383	\$3,122,081,379	(\$445,595,866)	

¹ Personal Property taxes of \$211,313,944 that are reimbursed by the Commonwealth as a result of the Personal Property Tax Relief Act of 1998 are included in the Revenue from the Commonwealth category in accordance with guidelines from the State Auditor of Public Accounts.

² The proposed County General Fund transfer for school operations in FY 2020 totals \$2,136,891,697, an increase of \$84,357,490, or 4.11 percent, over the FY 2019 Adopted Budget Plan level. It should be noted that this amount fully funds the transfer request included in the Fairfax County School Board's Advertised Budget.

ATTACHMENT I

FundDisplay	FundDisplayName	'Sum of ADV'
10001	General Fund	1634695971
10020	Consolidated Community Funding Pool	11698785
10030	Contributory Fund	14369203
10040	Information Technology	1650000
20000	Consolidated Debt Service	337211783
30000	Metro Operations and Construction	69239986
30010	General Construction and Contributions	22018691
30020	Infrastructure Replacement and Upgrades	0
30030	Library Construction	0
30040	Contributed Roadway Improvements	0
30050	Transportation Improvements	0
30060	Pedestrian Walkway Improvements	700000
30070	Public Safety Construction	0
30080	Commercial Revitalization Program	0
30090	Pro Rata Share Drainage Construction	0
30300	The Penny for Affordable Housing Fund	18400000
30310	Housing Assistance Program	0
30400	Park Authority Bond Construction	0
40000	County Transit Systems	102349745
40010	County and Regional Transportation Projects	53900387
40030	Cable Communications	11971027
40040	Fairfax-Falls Church Community Services Board	180455089
40050	Reston Community Center	9134677
40060	McLean Community Center	6139100
40070	Burgundy Village Community Center	46369
40080	Integrated Pest Management Program	3302224
40090	E-911	52296878
40100	Stormwater Services	80829210
40110	Dulles Rail Phase I Transportation Improvement District	15570400
40120	Dulles Rail Phase II Transportation Improvement District	500000
40125	Metrorail Parking System Pledged Revenues	10676724
40130	Leaf Collection	2548981
40140	Refuse Collection and Recycling Operations	18695338
40150	Refuse Disposal	55807582
40160	Energy Resource Recovery (ERR) Facility	0
40170	I-95 Refuse Disposal	7585670
40180	Tysons Service District	0
40190	Reston Service District	0
40300	Housing Trust Fund	798265
40330	Elderly Housing Programs	3164280
40360	Homeowner and Business Loan Programs	2555131
50000	Federal/State Grants	112549535
50800	Community Development Block Grant	5574509
50810	HOME Investment Partnerships Grant	2103044
60000	County Insurance	27832727
60010	Department of Vehicle Services	86099424
60020	Document Services	9406521
60030	Technology Infrastructure Services	44004292

60040	Health Benefits	190604037
69010	Sewer Operation and Maintenance	106043107
69020	Sewer Bond Parity Debt Service	25072781
69040	Sewer Bond Subordinate Debt Service	25783174
69300	Sewer Construction Improvements	75000000
69310	Sewer Bond Construction	121500000
70000	Route 28 Tax District	12498009
70040	Mosaic District Community Development Authority	5534213
73000	Employees' Retirement Trust	447174308
73010	Uniformed Employees Retirement Trust	140076942
73020	Police Retirement Trust	104920591
73030	OPEB Trust	12522889
S10000	Public School Operating	2956868854
S31000	Public School Construction	202818308
S40000	Public School Food and Nutrition Services	104653289
S43000	Public School Adult and Community Education	9237679
S50000	Public School Grants and Self Supporting Programs	76170694
S60000	Public School Insurance	19179763
S62000	Public School Health and Flexible Benefits	520119414
S63000	Public School Central Procurement	0
S71000	Educational Employees' Retirement	217169771
S71100	Public School OPEB Trust	23975500

FundDisplay	FundDisplayName	'Sum of ADV'
10001	General Fund	2803166916
20000	Consolidated Debt Service	0
30000	Metro Operations and Construction	3032151
30010	General Construction and Contributions	0
30020	Infrastructure Replacement and Upgrades	0
30040	Contributed Roadway Improvements	192152
30070	Public Safety Construction	0
40000	County Transit Systems	0
40010	County and Regional Transportation Projects	36974719
40030	Cable Communications	10884930
40040	Fairfax-Falls Church Community Services Board	0
40080	Integrated Pest Management Program	141000
40100	Stormwater Services	1125000
40130	Leaf Collection	54000
40140	Refuse Collection and Recycling Operations	494000
40150	Refuse Disposal	626000
40160	Energy Resource Recovery (ERR) Facility	0
40170	I-95 Refuse Disposal	186000
50000	Federal/State Grants	0
60010	Department of Vehicle Services	0
60030	Technology Infrastructure Services	0
69000	Sewer Revenue	229000000
69010	Sewer Operation and Maintenance	2850000
S10000	Public School Operating	32339715

FundDisplay	FundDisplayName	SupCommItem
10001	General Fund	4000
10001	General Fund	400P
10001	General Fund	400R
10001	General Fund	4100
10001	General Fund	4200
10001	General Fund	4300
10001	General Fund	430C
10001	General Fund	430F
10001	General Fund	4400
10001	General Fund	4500
10001	General Fund	4600
10001	General Fund	4630
10001	General Fund	4650
10001	General Fund	4700
10001	General Fund	4800
10001	General Fund	4900
10010	Revenue Stabilization	4600
10030	Contributory Fund	430C
10040	Information Technology	4300
10040	Information Technology	430C
10040	Information Technology	4400
10040	Information Technology	4600
10040	Information Technology	4700
10040	Information Technology	4800
10040	Information Technology	4900
20000	Consolidated Debt Service	4300
20000	Consolidated Debt Service	430F
20000	Consolidated Debt Service	4600
20000	Consolidated Debt Service	4700
20000	Consolidated Debt Service	4800
20000	Consolidated Debt Service	4900
30000	Metro Operations and Construction	4900
30010	General Construction and Contributions	4100
30010	General Construction and Contributions	4300
30010	General Construction and Contributions	430C
30010	General Construction and Contributions	430F
30010	General Construction and Contributions	4400
30010	General Construction and Contributions	4500
30010	General Construction and Contributions	4600
30010	General Construction and Contributions	4700
30010	General Construction and Contributions	4800
30010	General Construction and Contributions	4900
30020	Infrastructure Replacement and Upgrades	4300
30020	Infrastructure Replacement and Upgrades	430C
30020	Infrastructure Replacement and Upgrades	4600
30020	Infrastructure Replacement and Upgrades	4900
30030	Library Construction	4900
30040	Contributed Roadway Improvements	4300
30040	Contributed Roadway Improvements	430C
30040	Contributed Roadway Improvements	430F
30040	Contributed Roadway Improvements	4600
30040	Contributed Roadway Improvements	4630
30040	Contributed Roadway Improvements	4700
30040	Contributed Roadway Improvements	4800
30040	Contributed Roadway Improvements	4900
30050	Transportation Improvements	4300
30050	Transportation Improvements	430C
30050	Transportation Improvements	4700

30050	Transportation Improvements	4800
30050	Transportation Improvements	4900
30060	Pedestrian Walkway Improvements	4300
30060	Pedestrian Walkway Improvements	430C
30060	Pedestrian Walkway Improvements	430F
30060	Pedestrian Walkway Improvements	4700
30060	Pedestrian Walkway Improvements	4800
30070	Public Safety Construction	4600
30070	Public Safety Construction	4700
30070	Public Safety Construction	4800
30070	Public Safety Construction	4900
30080	Commercial Revitalization Program	4300
30080	Commercial Revitalization Program	430C
30080	Commercial Revitalization Program	430F
30080	Commercial Revitalization Program	4700
30080	Commercial Revitalization Program	4900
30090	Pro Rata Share Drainage Construction	4600
30090	Pro Rata Share Drainage Construction	4700
30300	The Penny for Affordable Housing Fund	4000
30300	The Penny for Affordable Housing Fund	400R
30300	The Penny for Affordable Housing Fund	4600
30300	The Penny for Affordable Housing Fund	4630
30300	The Penny for Affordable Housing Fund	4800
30300	The Penny for Affordable Housing Fund	4900
30310	Housing Assistance Program	4300
30310	Housing Assistance Program	430F
30310	Housing Assistance Program	4900
30400	Park Authority Bond Construction	430F
30400	Park Authority Bond Construction	4800
30400	Park Authority Bond Construction	4900
40000	County Transit Systems	4200
40000	County Transit Systems	4300
40000	County Transit Systems	430C
40000	County Transit Systems	4400
40000	County Transit Systems	4600
40000	County Transit Systems	4630
40000	County Transit Systems	4650
40000	County Transit Systems	4800
40000	County Transit Systems	4900
40010	County and Regional Transportation Projects	4000
40010	County and Regional Transportation Projects	400R
40010	County and Regional Transportation Projects	4100
40010	County and Regional Transportation Projects	4200
40010	County and Regional Transportation Projects	4300
40010	County and Regional Transportation Projects	430C
40010	County and Regional Transportation Projects	430F
40010	County and Regional Transportation Projects	4400
40010	County and Regional Transportation Projects	4600
40010	County and Regional Transportation Projects	4800
40010	County and Regional Transportation Projects	4900
40030	Cable Communications	4200
40030	Cable Communications	4400
40030	Cable Communications	4500
40030	Cable Communications	4800
40030	Cable Communications	4900
40040	Fairfax-Falls Church Community Services Board	4000
40040	Fairfax-Falls Church Community Services Board	4300
40040	Fairfax-Falls Church Community Services Board	430C
40040	Fairfax-Falls Church Community Services Board	430F

40040	Fairfax-Falls Church Community Services Board	4400
40040	Fairfax-Falls Church Community Services Board	4500
40040	Fairfax-Falls Church Community Services Board	4700
40040	Fairfax-Falls Church Community Services Board	4800
40050	Reston Community Center	4000
40050	Reston Community Center	400R
40050	Reston Community Center	4400
40050	Reston Community Center	4600
40050	Reston Community Center	4630
40050	Reston Community Center	4800
40050	Reston Community Center	4900
40060	McLean Community Center	4000
40060	McLean Community Center	400R
40060	McLean Community Center	4400
40060	McLean Community Center	4500
40060	McLean Community Center	4600
40060	McLean Community Center	4630
40060	McLean Community Center	4800
40060	McLean Community Center	4900
40070	Burgundy Village Community Center	4000
40070	Burgundy Village Community Center	400R
40070	Burgundy Village Community Center	4500
40070	Burgundy Village Community Center	4600
40070	Burgundy Village Community Center	4630
40080	Integrated Pest Management Program	4000
40080	Integrated Pest Management Program	400R
40080	Integrated Pest Management Program	4300
40080	Integrated Pest Management Program	430C
40080	Integrated Pest Management Program	4400
40080	Integrated Pest Management Program	4600
40090	E-911	4100
40090	E-911	4300
40090	E-911	430C
40090	E-911	4400
40090	E-911	4600
40090	E-911	4700
40090	E-911	4900
40100	Stormwater Services	4000
40100	Stormwater Services	400R
40100	Stormwater Services	4300
40100	Stormwater Services	430C
40100	Stormwater Services	430F
40100	Stormwater Services	4600
40100	Stormwater Services	4700
40100	Stormwater Services	4800
40100	Stormwater Services	4900
40110	Dulles Rail Phase I Transportation Improvement District	4000
40110	Dulles Rail Phase I Transportation Improvement District	400R
40110	Dulles Rail Phase I Transportation Improvement District	4600
40120	Dulles Rail Phase II Transportation Improvement District	4000
40120	Dulles Rail Phase II Transportation Improvement District	400R
40120	Dulles Rail Phase II Transportation Improvement District	4600
40125	Metrorail Parking System Pledged Revenues	4600
40125	Metrorail Parking System Pledged Revenues	4800
40125	Metrorail Parking System Pledged Revenues	4900
40130	Leaf Collection	4400
40130	Leaf Collection	4600
40130	Leaf Collection	4630
40130	Leaf Collection	4900

40140	Refuse Collection and Recycling Operations	4300
40140	Refuse Collection and Recycling Operations	430C
40140	Refuse Collection and Recycling Operations	4400
40140	Refuse Collection and Recycling Operations	4500
40140	Refuse Collection and Recycling Operations	4600
40140	Refuse Collection and Recycling Operations	4650
40140	Refuse Collection and Recycling Operations	4700
40140	Refuse Collection and Recycling Operations	4800
40140	Refuse Collection and Recycling Operations	4900
40150	Refuse Disposal	4200
40150	Refuse Disposal	4400
40150	Refuse Disposal	4500
40150	Refuse Disposal	4600
40150	Refuse Disposal	4630
40150	Refuse Disposal	4650
40150	Refuse Disposal	4700
40150	Refuse Disposal	4800
40150	Refuse Disposal	4900
40160	Energy Resource Recovery (ERR) Facility	4400
40160	Energy Resource Recovery (ERR) Facility	4600
40160	Energy Resource Recovery (ERR) Facility	4650
40160	Energy Resource Recovery (ERR) Facility	4700
40160	Energy Resource Recovery (ERR) Facility	4800
40160	Energy Resource Recovery (ERR) Facility	4900
40170	I-95 Refuse Disposal	4200
40170	I-95 Refuse Disposal	4400
40170	I-95 Refuse Disposal	4600
40170	I-95 Refuse Disposal	4650
40170	I-95 Refuse Disposal	4700
40170	I-95 Refuse Disposal	4800
40170	I-95 Refuse Disposal	4900
40180	Tysons Service District	400R
40180	Tysons Service District	4600
40190	Reston Service District	400R
40190	Reston Service District	4600
40300	Housing Trust Fund	4600
40300	Housing Trust Fund	4800
40300	Housing Trust Fund	4900
40330	Elderly Housing Programs	4400
40330	Elderly Housing Programs	4500
40330	Elderly Housing Programs	4600
40330	Elderly Housing Programs	4630
40330	Elderly Housing Programs	4700
40330	Elderly Housing Programs	4800
40330	Elderly Housing Programs	4900
40360	Homeowner and Business Loan Programs	430F
40360	Homeowner and Business Loan Programs	4600
40360	Homeowner and Business Loan Programs	4900
50000	Federal/State Grants	4300
50000	Federal/State Grants	430C
50000	Federal/State Grants	430F
50000	Federal/State Grants	4400
50000	Federal/State Grants	4600
50000	Federal/State Grants	4700
50000	Federal/State Grants	4800
50000	Federal/State Grants	4900
50800	Community Development Block Grant	4300
50800	Community Development Block Grant	430F
50800	Community Development Block Grant	4400

50800	Community Development Block Grant	4600
50810	HOME Investment Partnerships Grant	4300
50810	HOME Investment Partnerships Grant	430F
50810	HOME Investment Partnerships Grant	4400
50810	HOME Investment Partnerships Grant	4600
50810	HOME Investment Partnerships Grant	4800
60000	County Insurance	4600
60000	County Insurance	4700
60010	Department of Vehicle Services	430F
60010	Department of Vehicle Services	4600
60010	Department of Vehicle Services	4650
60010	Department of Vehicle Services	4700
60010	Department of Vehicle Services	4900
60020	Document Services	4700
60020	Document Services	4800
60030	Technology Infrastructure Services	4600
60030	Technology Infrastructure Services	4650
60030	Technology Infrastructure Services	4700
60030	Technology Infrastructure Services	4900
60040	Health Benefits	4300
60040	Health Benefits	430F
60040	Health Benefits	4400
60040	Health Benefits	4600
60040	Health Benefits	4800
60040	Health Benefits	4900
69000	Sewer Revenue	4400
69000	Sewer Revenue	4600
69000	Sewer Revenue	4650
69000	Sewer Revenue	4800
69000	Sewer Revenue	4900
69030	Sewer Bond Debt Reserve	4900
69310	Sewer Bond Construction	4300
69310	Sewer Bond Construction	430C
69310	Sewer Bond Construction	4600
69310	Sewer Bond Construction	4900
70000	Route 28 Tax District	4100
70000	Route 28 Tax District	4600
70040	Mosaic District Community Development Authority	4000
70040	Mosaic District Community Development Authority	400R
73000	Employees' Retirement Trust	4600
73000	Employees' Retirement Trust	4900
73010	Uniformed Employees Retirement Trust	4600
73010	Uniformed Employees Retirement Trust	4900
73020	Police Retirement Trust	4600
73020	Police Retirement Trust	4900
73030	OPEB Trust	4300
73030	OPEB Trust	430F
73030	OPEB Trust	4600
73030	OPEB Trust	4800
73030	OPEB Trust	4900
S10000	Public School Operating	4300
S10000	Public School Operating	430C
S10000	Public School Operating	430F
S10000	Public School Operating	4800
S31000	Public School Construction	430F
S31000	Public School Construction	4600
S31000	Public School Construction	4800
S31000	Public School Construction	4900
S40000	Public School Food and Nutrition Services	4300

S40000	Public School Food and Nutrition Services	430C
S40000	Public School Food and Nutrition Services	430F
S40000	Public School Food and Nutrition Services	4400
S40000	Public School Food and Nutrition Services	4800
S43000	Public School Adult and Community Education	4300
S43000	Public School Adult and Community Education	430C
S43000	Public School Adult and Community Education	430F
S43000	Public School Adult and Community Education	4400
S43000	Public School Adult and Community Education	4800
S50000	Public School Grants and Self Supporting Programs	4300
S50000	Public School Grants and Self Supporting Programs	430C
S50000	Public School Grants and Self Supporting Programs	430F
S50000	Public School Grants and Self Supporting Programs	4400
S50000	Public School Grants and Self Supporting Programs	4800
S60000	Public School Insurance	4300
S60000	Public School Insurance	430F
S60000	Public School Insurance	4800
S62000	Public School Health and Flexible Benefits	4300
S62000	Public School Health and Flexible Benefits	430F
S62000	Public School Health and Flexible Benefits	4600
S62000	Public School Health and Flexible Benefits	4800
S63000	Public School Central Procurement	4800
S71000	Educational Employees' Retirement	4600
S71000	Educational Employees' Retirement	4800
S71100	Public School OPEB Trust	4600
S71100	Public School OPEB Trust	4800

SupCItemDescript	'Sum of ADV'	FdSup
Property Taxes	0	100014000
Personal Property Taxes	426,457,026	10001400P
Real Property Taxes	2,890,593,420	10001400R
Other Local Taxes	527,746,118	100014100
Permits, Privilege Fees, and Regulatory Licenses	53,559,013	100014200
Intergovernmental	0	100014300
Revenue from the Commonwealth	311,662,618	10001430C
Revenue from the Federal Government	39,350,986	10001430F
Charges for Services	83,305,683	100014400
Fines and Forfeitures	12,583,545	100014500
Revenue from Use of Money and Property	82,283,249	100014600
Rental Revenues	0	100014630
Revenue from Use of Money and Property (FCPS)	0	100014650
Recovered Cost	14,378,728	100014700
Gift, Donations, and Contributions	132,130	100014800
Other Financing Sources	2,423,682	100014900
Revenue from Use of Money and Property	3,400,000	100104600
Revenue from the Commonwealth	0	10030430C
Intergovernmental	0	100404300
Revenue from the Commonwealth	0	10040430C
Charges for Services	0	100404400
Revenue from Use of Money and Property	200,000	100404600
Recovered Cost	0	100404700
Gift, Donations, and Contributions	0	100404800
Other Financing Sources	0	100404900
Intergovernmental	0	200004300
Revenue from the Federal Government	2,500,000	20000430F
Revenue from Use of Money and Property	0	200004600
Recovered Cost	80,000	200004700
Gift, Donations, and Contributions	0	200004800
Other Financing Sources	500,000	200004900
Other Financing Sources	25,000,000	300004900
Other Local Taxes	0	300104100
Intergovernmental	0	300104300
Revenue from the Commonwealth	0	30010430C
Revenue from the Federal Government	0	30010430F
Charges for Services	1,475,000	300104400
Fines and Forfeitures	0	300104500
Revenue from Use of Money and Property	0	300104600
Recovered Cost	100,000	300104700
Gift, Donations, and Contributions	0	300104800
Other Financing Sources	3,000,000	300104900
Intergovernmental	0	300204300
Revenue from the Commonwealth	0	30020430C
Revenue from Use of Money and Property	0	300204600
Other Financing Sources	0	300204900
Other Financing Sources	0	300304900
Intergovernmental	0	300404300
Revenue from the Commonwealth	0	30040430C
Revenue from the Federal Government	0	30040430F
Revenue from Use of Money and Property	0	300404600
Rental Revenues	0	300404630
Recovered Cost	192,152	300404700
Gift, Donations, and Contributions	0	300404800
Other Financing Sources	0	300404900
Intergovernmental	0	300504300
Revenue from the Commonwealth	0	30050430C
Recovered Cost	0	300504700

Gift, Donations, and Contributions	0	300504800
Other Financing Sources	0	300504900
Intergovernmental	0	300604300
Revenue from the Commonwealth	0	30060430C
Revenue from the Federal Government	0	30060430F
Recovered Cost	0	300604700
Gift, Donations, and Contributions	0	300604800
Revenue from Use of Money and Property	0	300704600
Recovered Cost	0	300704700
Gift, Donations, and Contributions	0	300704800
Other Financing Sources	0	300704900
Intergovernmental	0	300804300
Revenue from the Commonwealth	0	30080430C
Revenue from the Federal Government	0	30080430F
Recovered Cost	0	300804700
Other Financing Sources	0	300804900
Revenue from Use of Money and Property	0	300904600
Recovered Cost	0	300904700
Property Taxes	0	303004000
Real Property Taxes	12,400,000	30300400R
Revenue from Use of Money and Property	0	303004600
Rental Revenues	0	303004630
Gift, Donations, and Contributions	6,000,000	303004800
Other Financing Sources	0	303004900
Intergovernmental	0	303104300
Revenue from the Federal Government	0	30310430F
Other Financing Sources	0	303104900
Revenue from the Federal Government	0	30400430F
Gift, Donations, and Contributions	0	304004800
Other Financing Sources	0	304004900
Permits, Privilege Fees, and Regulatory Licenses	0	400004200
Intergovernmental	0	400004300
Revenue from the Commonwealth	12,952,403	40000430C
Charges for Services	7,850,000	400004400
Revenue from Use of Money and Property	250,000	400004600
Rental Revenues	0	400004630
Revenue from Use of Money and Property (FCPS)	0	400004650
Gift, Donations, and Contributions	532,000	400004800
Other Financing Sources	0	400004900
Property Taxes	0	400104000
Real Property Taxes	55,979,654	40010400R
Other Local Taxes	0	400104100
Permits, Privilege Fees, and Regulatory Licenses	0	400104200
Intergovernmental	0	400104300
Revenue from the Commonwealth	34,765,452	40010430C
Revenue from the Federal Government	0	40010430F
Charges for Services	0	400104400
Revenue from Use of Money and Property	0	400104600
Gift, Donations, and Contributions	130,000	400104800
Other Financing Sources	0	400104900
Permits, Privilege Fees, and Regulatory Licenses	22,749,209	400304200
Charges for Services	0	400304400
Fines and Forfeitures	0	400304500
Gift, Donations, and Contributions	0	400304800
Other Financing Sources	0	400304900
Property Taxes	0	400404000
Intergovernmental	0	400404300
Revenue from the Commonwealth	11,886,443	40040430C
Revenue from the Federal Government	4,208,641	40040430F

Charges for Services	16,059,269	400404400
Fines and Forfeitures	14,100	400404500
Recovered Cost	2,844,909	400404700
Gift, Donations, and Contributions	0	400404800
Property Taxes	0	400504000
Real Property Taxes	7,933,739	40050400R
Charges for Services	929,299	400504400
Revenue from Use of Money and Property	275,139	400504600
Rental Revenues	0	400504630
Gift, Donations, and Contributions	0	400504800
Other Financing Sources	0	400504900
Property Taxes	0	400604000
Real Property Taxes	4,763,798	40060400R
Charges for Services	1,252,842	400604400
Fines and Forfeitures	0	400604500
Revenue from Use of Money and Property	122,460	400604600
Rental Revenues	0	400604630
Gift, Donations, and Contributions	0	400604800
Other Financing Sources	0	400604900
Property Taxes	0	400704000
Real Property Taxes	32,465	40070400R
Fines and Forfeitures	0	400704500
Revenue from Use of Money and Property	45,963	400704600
Rental Revenues	0	400704630
Property Taxes	0	400804000
Real Property Taxes	2,544,264	40080400R
Intergovernmental	0	400804300
Revenue from the Commonwealth	0	40080430C
Charges for Services	0	400804400
Revenue from Use of Money and Property	7,691	400804600
Other Local Taxes	46,697,339	400904100
Intergovernmental	0	400904300
Revenue from the Commonwealth	3,396,251	40090430C
Charges for Services	0	400904400
Revenue from Use of Money and Property	10,000	400904600
Recovered Cost	150,000	400904700
Other Financing Sources	0	400904900
Property Taxes	0	401004000
Real Property Taxes	81,954,210	40100400R
Intergovernmental	0	401004300
Revenue from the Commonwealth	0	40100430C
Revenue from the Federal Government	0	40100430F
Revenue from Use of Money and Property	0	401004600
Recovered Cost	0	401004700
Gift, Donations, and Contributions	0	401004800
Other Financing Sources	0	401004900
Property Taxes	0	401104000
Real Property Taxes	21,809,181	40110400R
Revenue from Use of Money and Property	0	401104600
Property Taxes	0	401204000
Real Property Taxes	19,470,335	40120400R
Revenue from Use of Money and Property	0	401204600
Revenue from Use of Money and Property	6,500,000	401254600
Gift, Donations, and Contributions	4,253,408	401254800
Other Financing Sources	0	401254900
Charges for Services	2,086,250	401304400
Revenue from Use of Money and Property	67,304	401304600
Rental Revenues	0	401304630
Other Financing Sources	40,000	401304900

Intergovernmental	0	401404300
Revenue from the Commonwealth	120,000	40140430C
Charges for Services	18,556,278	401404400
Fines and Forfeitures	0	401404500
Revenue from Use of Money and Property	110,208	401404600
Revenue from Use of Money and Property (FCPS)	0	401404650
Recovered Cost	28,738	401404700
Gift, Donations, and Contributions	0	401404800
Other Financing Sources	120,000	401404900
Permits, Privilege Fees, and Regulatory Licenses	82,320	401504200
Charges for Services	54,116,542	401504400
Fines and Forfeitures	0	401504500
Revenue from Use of Money and Property	600,000	401504600
Rental Revenues	0	401504630
Revenue from Use of Money and Property (FCPS)	0	401504650
Recovered Cost	0	401504700
Gift, Donations, and Contributions	300,000	401504800
Other Financing Sources	793,000	401504900
Charges for Services	0	401604400
Revenue from Use of Money and Property	0	401604600
Revenue from Use of Money and Property (FCPS)	0	401604650
Recovered Cost	0	401604700
Gift, Donations, and Contributions	0	401604800
Other Financing Sources	0	401604900
Permits, Privilege Fees, and Regulatory Licenses	0	401704200
Charges for Services	9,293,250	401704400
Revenue from Use of Money and Property	300,000	401704600
Revenue from Use of Money and Property (FCPS)	0	401704650
Recovered Cost	0	401704700
Gift, Donations, and Contributions	0	401704800
Other Financing Sources	200,000	401704900
Real Property Taxes	8,395,515	40180400R
Revenue from Use of Money and Property	0	401804600
Real Property Taxes	2,193,484	40190400R
Revenue from Use of Money and Property	0	401904600
Revenue from Use of Money and Property	198,265	403004600
Gift, Donations, and Contributions	600,000	403004800
Other Financing Sources	0	403004900
Charges for Services	4,763	403304400
Fines and Forfeitures	3,209	403304500
Revenue from Use of Money and Property	1,275,866	403304600
Rental Revenues	0	403304630
Recovered Cost	0	403304700
Gift, Donations, and Contributions	784	403304800
Other Financing Sources	0	403304900
Revenue from the Federal Government	0	40360430F
Revenue from Use of Money and Property	2,500,000	403604600
Other Financing Sources	0	403604900
Intergovernmental	0	500004300
Revenue from the Commonwealth	0	50000430C
Revenue from the Federal Government	0	50000430F
Charges for Services	0	500004400
Revenue from Use of Money and Property	0	500004600
Recovered Cost	0	500004700
Gift, Donations, and Contributions	108,116,881	500004800
Other Financing Sources	0	500004900
Intergovernmental	0	508004300
Revenue from the Federal Government	5,574,509	50800430F
Charges for Services	0	508004400

Revenue from Use of Money and Property	0	508004600
Intergovernmental	0	508104300
Revenue from the Federal Government	2,103,044	50810430F
Charges for Services	0	508104400
Revenue from Use of Money and Property	0	508104600
Gift, Donations, and Contributions	0	508104800
Revenue from Use of Money and Property	1,750,000	600004600
Recovered Cost	620,859	600004700
Revenue from the Federal Government	0	60010430F
Revenue from Use of Money and Property	0	600104600
Revenue from Use of Money and Property (FCPS)	0	600104650
Recovered Cost	81,012,635	600104700
Other Financing Sources	839,831	600104900
Recovered Cost	5,205,392	600204700
Gift, Donations, and Contributions	0	600204800
Revenue from Use of Money and Property	0	600304600
Revenue from Use of Money and Property (FCPS)	0	600304650
Recovered Cost	38,510,778	600304700
Other Financing Sources	0	600304900
Intergovernmental	0	600404300
Revenue from the Federal Government	0	60040430F
Charges for Services	61,770	600404400
Revenue from Use of Money and Property	1,118,817	600404600
Gift, Donations, and Contributions	0	600404800
Other Financing Sources	191,488,720	600404900
Charges for Services	234,328,095	690004400
Revenue from Use of Money and Property	650,000	690004600
Revenue from Use of Money and Property (FCPS)	0	690004650
Gift, Donations, and Contributions	664,606	690004800
Other Financing Sources	100,000	690004900
Other Financing Sources	8,500,000	690304900
Intergovernmental	0	693104300
Revenue from the Commonwealth	0	69310430C
Revenue from Use of Money and Property	0	693104600
Other Financing Sources	121,500,000	693104900
Other Local Taxes	11,498,009	700004100
Revenue from Use of Money and Property	1,000,000	700004600
Property Taxes	0	700404000
Real Property Taxes	5,534,213	70040400R
Revenue from Use of Money and Property	330,476,420	730004600
Other Financing Sources	266,450,000	730004900
Revenue from Use of Money and Property	150,146,753	730104600
Other Financing Sources	86,150,000	730104900
Revenue from Use of Money and Property	122,414,902	730204600
Other Financing Sources	61,575,000	730204900
Intergovernmental	0	730304300
Revenue from the Federal Government	500,000	73030430F
Revenue from Use of Money and Property	150,000	730304600
Gift, Donations, and Contributions	0	730304800
Other Financing Sources	2,639,398	730304900
Intergovernmental	0	S100004300
Revenue from the Commonwealth	712,123,291	S10000430C
Revenue from the Federal Government	45,035,541	S10000430F
Gift, Donations, and Contributions	73,453,953	S100004800
Revenue from the Federal Government	0	S31000430F
Revenue from Use of Money and Property	0	S310004600
Gift, Donations, and Contributions	1,483,205	S310004800
Other Financing Sources	180,000,000	S310004900
Intergovernmental	0	S400004300

Revenue from the Commonwealth	1,448,618	S40000430C
Revenue from the Federal Government	41,067,420	S40000430F
Charges for Services	42,726,982	S400004400
Gift, Donations, and Contributions	75,361	S400004800
Intergovernmental	0	S430004300
Revenue from the Commonwealth	913,768	S43000430C
Revenue from the Federal Government	2,059,219	S43000430F
Charges for Services	5,197,020	S430004400
Gift, Donations, and Contributions	92,672	S430004800
Intergovernmental	0	S500004300
Revenue from the Commonwealth	9,172,786	S50000430C
Revenue from the Federal Government	33,028,415	S50000430F
Charges for Services	2,646,625	S500004400
Gift, Donations, and Contributions	6,040,000	S500004800
Intergovernmental	0	S600004300
Revenue from the Federal Government	0	S60000430F
Gift, Donations, and Contributions	13,231,339	S600004800
Intergovernmental	0	S620004300
Revenue from the Federal Government	0	S62000430F
Revenue from Use of Money and Property	25,501,084	S620004600
Gift, Donations, and Contributions	406,359,433	S620004800
Gift, Donations, and Contributions	0	S630004800
Revenue from Use of Money and Property	256,000,000	S710004600
Gift, Donations, and Contributions	151,351,975	S710004800
Revenue from Use of Money and Property	5,142,012	S711004600
Gift, Donations, and Contributions	28,875,000	S711004800

FundDisplay	FundDisplayName	'Sum of ADV'
10001	General Fund	9081414
10010	Revenue Stabilization	0
10020	Consolidated Community Funding Pool	11698785
10030	Contributory Fund	14368492
10040	Information Technology	1450000
20000	Consolidated Debt Service	334131783
30000	Metro Operations and Construction	47272137
30010	General Construction and Contributions	17443691
30020	Infrastructure Replacement and Upgrades	0
30050	Transportation Improvements	0
30060	Pedestrian Walkway Improvements	700000
30070	Public Safety Construction	0
30080	Commercial Revitalization Program	0
30300	The Penny for Affordable Housing Fund	0
30310	Housing Assistance Program	0
40000	County Transit Systems	80640342
40040	Fairfax-Falls Church Community Services Board	145441727
40090	E-911	0
40100	Stormwater Services	0
40125	Metrorail Parking System Pledged Revenues	0
40330	Elderly Housing Programs	1879658
50000	Federal/State Grants	4432654
50800	Community Development Block Grant	0
60000	County Insurance	24273437
60020	Document Services	3941831
60030	Technology Infrastructure Services	4714102
60040	Health Benefits	0
69010	Sewer Operation and Maintenance	108900000
69020	Sewer Bond Parity Debt Service	23100000
69030	Sewer Bond Debt Reserve	0
69040	Sewer Bond Subordinate Debt Service	22000000
69300	Sewer Construction Improvements	75000000
69310	Sewer Bond Construction	0
73030	OPEB Trust	10490000
S10000	Public School Operating	2136891697
S31000	Public School Construction	21395392
S43000	Public School Adult and Community Education	975000
S50000	Public School Grants and Self Supporting Programs	21859237

**DRAFT
Resolution Adopting Tax Rates for Fairfax County
Fiscal Year 2020**

ATTACHMENT II

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Room in the Fairfax County Government Center at Fairfax, Virginia, on Tuesday, May 7, 2019, at which meeting a quorum was present and voting, the following resolution was adopted:

**RESOLUTION ADOPTING TAX RATES
FOR FAIRFAX COUNTY**

FISCAL YEAR 2020

BE IT RESOLVED that, pursuant to the provisions of Virginia Code § 58.1-3001, and after having first complied with the provisions of the Virginia Code §§ 15.2-2506 and 58.1-3321, the Board does hereby establish the tax levies for the fiscal budget year beginning July 1, 2019, and ending June 30, 2020, and calendar tax year beginning January 1, 2019 and ending December 31, 2019, as follows to wit:

COUNTY LEVIES

General provisions. The County property taxes are levied on each \$100.00 of assessed valuation of real estate and tangible personal property, excluding household furnishings, and including machinery and tools of mining, manufacturing, radio or television broadcasting, dairy, dry cleaning or laundry firms, and all personal property of research and development firms, in the County, including such property within the incorporated towns that are within the County. Except as otherwise stated herein, all such taxes are imposed generally pursuant with Virginia law on all taxable property throughout the County, including the incorporated towns therein, and the revenues derived from such levies shall be appropriated by the Board of Supervisors in accordance with Virginia law.

Real Estate*

On each \$100.00 of the assessed valuation of real estate and improvements on real estate in the County the tax rate shall be \$1.150

*Tax will be levied and collected in two semi-annual tax billings.

Commercial and Industrial Real Estate Tax for Transportation*

On each \$100.00 of assessed valuation of the taxable commercial and industrial real estate in the County the tax rate in support of transportation shall be an additional..... \$0.125

*Tax will be levied and collected in two semi-annual tax billings.

Personal Property

On each \$100.00 of assessed valuation of tangible personal property, including all property separately classified by Virginia Code § 58.1-3503, the tax rate shall be \$4.57

Except for the following:

Mobile Homes

On each \$100.00 of assessed valuation of mobile homes, as separately classified by Virginia Code § 58.1-3506(A)(10), the tax rate shall be \$1.150

Machinery and Tools

On each \$100.00 of assessed valuation of machinery and tools, as separately classified by Virginia Code § 58.1-3507, the tax rate shall be \$4.57

Research and Development

On each \$100.00 of assessed valuation of tangible personal property used or employed in a research and development business, as separately classified by Virginia Code § 58.1-3506(A)(7), the tax rate shall be \$4.57

Certain Personal Property of Planned Residential Subdivisions

On each \$100.00 of assessed valuation of furniture, office, and maintenance equipment, exclusive of motor vehicles, which are owned and used by an organization whose real property is assessed in accordance with Virginia Code § 58.1-3284.1 and which is used by that organization for the purpose of maintaining or using the open or common space within a residential development as classified by Virginia Code § 58.1-3506(A)(24), the tax rate shall be \$0.01

Van Pools - Privately Owned Vans

On each \$100.00 of assessed valuation of privately owned vans, as separately classified by Virginia Code § 58.1-3506(A)(13), the tax rate shall be \$0.01

Privately owned vans means vans with a seating capacity of seven to fifteen persons used exclusively pursuant to a ridesharing agreement as defined in Virginia Code § 46.2-1400, and which have been certified as such by the Director of the Department of Tax Administration.

Motor Vehicles Owned by Members of a
Volunteer Rescue Squad or Volunteer Fire Department

On each \$100.00 of assessed valuation of motor vehicles as separately classified by Virginia Code § 58.1-3506(A)(15), the tax rate shall be \$0.01

Motor vehicles as classified by Virginia Code § 58.1-3506 (A) (15), shall be defined to mean one motor vehicle owned or leased by each member of a volunteer rescue squad or volunteer fire department which is regularly used by such members to respond to emergency calls and certified as such by the Chief or Head of the Volunteer Organization and the Department of Tax Administration.

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ATTACHMENT II

Motor Vehicles Specially Equipped to Provide
Transportation for Physically Handicapped Individuals

On each \$100.00 of assessed valuation of motor vehicles as separately classified by Virginia Code § 58.1-3506(A)(14), the tax rate shall be..... \$0.01

Specially equipped means any vehicle which has been modified specifically for the purpose of transporting physically handicapped individuals and the vehicle is certified as such by the Director of the Department of Tax Administration.

Motor Vehicles Owned
By Certain Qualifying Elderly and Disabled Individuals

On each \$100.00 of assessed valuation of certain motor vehicles as classified by Virginia Code § 58.1-3506.1, the tax rate shall be \$0.01

Applies to one motor vehicle owned and used by certain elderly and disabled persons who qualify on the basis of income and net worth.

Motor Vehicles Owned
By Persons Who Have Been Appointed to Serve as Auxiliary Police Officers

On each \$100.00 of assessed valuation of motor vehicles as classified by Virginia Code § 58.1-3506(A)(20), the tax rate shall be \$0.01

Motor vehicles as classified by Virginia Code § 58.1-3506 (A) (20), shall be defined to mean one motor vehicle owned or leased by an Auxiliary Police Officer to respond to auxiliary police duties, subject to certification as required by the provisions of the authorizing statute.

Motor Vehicles Owned
By Persons Who Have Been Appointed to Serve as Auxiliary Deputy Sheriffs

On each \$100.00 of assessed valuation of motor vehicles as classified by Virginia Code § 58.1-3506 (A)(32), the tax rate shall be \$0.01

Motor vehicles as classified by Virginia Code § 58.1-3506 (A)(32), shall be defined to mean one motor vehicle owned or leased by an Auxiliary Deputy Sheriff to respond to auxiliary deputy sheriff duties, subject to certification as required by the provisions of the authorizing statute.

Aircraft and Flight Simulators

On each \$100.00 of assessed valuation of aircraft and flight simulators, as classified by Virginia Code § 58.1-3506(A)(2), (3), (4) and (5) the tax rate shall be \$0.01

Antique Motor Vehicles

On each \$100.00 of assessed valuation of antique motor vehicles, as separately classified by Virginia Code § 58.1-3506(A)(6), the tax rate shall be \$0.01

Antique motor vehicles or antique automobiles means every motor vehicle which was actually manufactured or designated by the manufacturer as a model manufactured in a calendar year not less than twenty-five years ago and is owned solely as a collector's item.

**DRAFT
Resolution Adopting Tax Rates for Fairfax County
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ATTACHMENT II

Boats

On each \$100.00 of assessed valuation of boats and watercraft, as classified by Virginia Code § 58.1-3506(A)(1), (12), (28), (29), (35) and (36) the tax rate shall be \$0.01

Motor Vehicles Owned By Qualified Disabled Veterans

On each \$100.00 of assessed valuation of motor vehicles, as classified by Virginia Code § 58.1-3506(A)(19), the tax rate shall be \$0.01

Motor vehicles as classified by Virginia Code § 58.1-3506(A)(19) shall be defined to mean one motor vehicle owned and regularly used by qualified disabled veterans, subject to certification as required by the provisions of the authorizing statute.

SANITARY DISTRICT LEVIES*

Local District 1A Lee

(Burgundy Village Community Center)

On each \$100.00 of assessed valuation of real estate within the boundary of Local District 1A Lee in the County, the tax rate shall be \$0.02

Small District 1 Dranesville

(McLean Community Center)

On each \$100.00 of assessed valuation of real estate within the boundary of Small District 1 Dranesville in the County, the tax rate shall be \$0.023

Small District 5 Hunter Mill

(Reston Community Center)

On each \$100.00 of assessed valuation of real estate within the boundary of Small District 5 Hunter Mill in the County, the tax rate shall be \$0.047

*Tax will be levied and collected in two semi-annual tax billings.

Leaf Collection:

Small District 2 Braddock
Local District 1A11 Dranesville
Local District 1A21 Dranesville
Local District 1A22 Dranesville
Local District 1A61 Dranesville
Local District 1B1 Dranesville
Local District 1E Dranesville
Small District 3 Dranesville
Small District 7 Dranesville
Small District 8 Dranesville
Small District 10 Dranesville
Small District 12 Dranesville
Small District 15 Dranesville
Local District 1B Lee

Local District 1C Lee
Local District 1D Lee
Local District 1E Lee
Small District 1 Mason
Local District 1A Mason
Small District 2 Mason
Small District 4 Mason
Local District 7A Mason
Small District 9 Mason
Small District 10 Mason
Local District 1A Mount Vernon
Local District 1B Mount Vernon
Local District 1C Mount Vernon
Local District 1D Mount Vernon

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Leaf Collection (continued):

Local District 1E Mount Vernon
Small District 1 Providence
Small District 2 Providence

Small District 4 Providence
Small District 6 Providence
Small District 7 Providence
Small District 8 Providence

On each \$100.00 of assessed valuation of real estate within the boundaries of the above-enumerated Districts in the County, the tax rate shall be \$0.012

On any real estate which is deleted from a sanitary district effective July 1, 2019, as a result of the contraction of such sanitary district, such real estate will be entitled to pro rata abatement from the amount of the annual charge hereby established for leaf collection.

On any real estate, which is added to a sanitary district effective July 1, 2019, as a result of either the creation or the enlargement of a sanitary district, such real estate will be charged a pro rata fee for the annual charge hereby established for leaf collection.

Refuse Service:

Small District 2 Braddock
Small District 3 Braddock
Small District 2 Hunter Mill
Small District 3 Hunter Mill
Local District 5A Hunter Mill
Local District 1A1 Dranesville
Local District 1A2 Dranesville
Local District 1A3 Dranesville
Local District 1A4 Dranesville
Local District 1A5 Dranesville
Local District 1A6 Dranesville
Local District 1A8 Dranesville
Local District 1A9 Dranesville
Local District 1A11 Dranesville
Local District 1A12 Dranesville
Local District 1A21 Dranesville
Local District 1A22 Dranesville
Local District 1A61 Dranesville
Local District 1B Dranesville
Local District 1B1 Dranesville
Local District 1B2 Dranesville
Local District 1E Dranesville
Small District 3 Dranesville
Small District 4 Dranesville
Small District 6 Dranesville
Small District 7 Dranesville
Small District 8 Dranesville
Small District 9 Dranesville
Small District 10 Dranesville
Small District 11 Dranesville
Small District 12 Dranesville
Small District 13 Dranesville
Small District 14 Dranesville
Small District 15 Dranesville
Small District 1 Lee
Local District 1A Lee
Local District 1B Lee
Local District 1C Lee

Local District 1D Lee
Local District 1E Lee
Small District 2 Lee
Small District 3 Lee
Small District 4 Lee
Small District 1 Mason
Local District 1A Mason
Local District 1B Mason
Local District 1C Mason
Local District 1D Mason
Local District 1F Mason
Small District 2 Mason
Small District 3 Mason
Small District 4 Mason
Small District 5 Mason
Small District 6 Mason
Small District 7 Mason
Local District 7A Mason
Small District 8 Mason
Small District 9 Mason
Small District 10 Mason
Small District 11 Mason
Small District 1 Mount Vernon
Local District 1A Mount Vernon
Local District 1B Mount Vernon
Local District 1C Mount Vernon
Local District 1D Mount Vernon
Local District 1E Mount Vernon
Small District 2 Mount Vernon
Local District 2A Mount Vernon
Local District 2B Mount Vernon
Small District 1 Providence
Local District 1A Providence
Local District 1B Providence
Small District 3 Providence
Small District 4 Providence
Small District 6 Providence
Small District 7 Providence

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ATTACHMENT II

Refuse Service (continued):
Small District 8 Providence
Small District 9 Providence
Small District 11 Providence

Small District 12 Providence
Small District 13 Providence
Small District 4 Springfield
Small District 6 Springfield

On each single-family dwelling and on each unit of two-family dwellings, excluding apartments (garden through high-rise), multi-family condominiums (garden through high-rise), and/or other multi-unit dwelling type buildings, existing or under construction January 1, 2019, within the boundaries of the above enumerated Districts, a base annual charge of \$385.00 for refuse collection service to be added to the regular real estate tax bill, and that annual charge shall be subject to penalty and interest charges and becoming a lien against the property if not paid, in the same manner as any other real estate tax.

On any dwelling that is neither completed nor occupied by June 30, 2019, the owner thereof shall, upon application to the Director of the Department of Tax Administration or the Director DPWES, Solid Waste Collection and Recycling, made prior to December 5, 2019, be entitled to relief in the amount of the pro-rata portion based on the service period of the base annual charge hereby established. The claimant must provide acceptable evidence that the dwelling was not occupied, nor generating waste to the Director of the Department of Tax Administration or the Director DPWES, Solid Waste Collection and Recycling.

On any dwelling that is neither completed nor occupied by December 31, 2019, the owner thereof shall, upon application to the Director of the Department of Tax Administration or the Director DPWES, Solid Waste Collection and Recycling, made prior to March 31, 2020, be entitled to relief in the amount of the pro-rata portion based on the service period of the base annual charge hereby established. The claimant must provide acceptable evidence that the dwelling was not occupied, nor generating waste to the Director of the Department of Tax Administration or the Director DPWES, Solid Waste Collection and Recycling.

On any dwelling that is deleted from a sanitary district, as a result of the contraction of such sanitary district, the owner thereof will be entitled to relief in the amount of a pro rata portion of the base annual charge hereby established when service for refuse and recycling collection service is eliminated based on the service period.

On any dwelling that is added to a sanitary district, as a result of either the creation or the enlargement of a sanitary district or construction within the sanitary district, the owner thereof will be charged a pro rata portion of the base annual charge hereby established when service begins for refuse and recycling collection service based on the service period.

Water Service:

Small District One within Springfield District

On any lot within the district, an annual assessment of \$661 for thirty years commencing July 1, 1993. This annual assessment is for the purpose of providing water service to Clifton Forest, a group of homes located within the Lincoln-Lewis-Vannoy Conservation District.

Small District Three within Springfield District

On any lot within the district, an annual assessment of \$959 commencing January 1, 2003 and ending December 31, 2032. This annual assessment is for the purpose of providing water service to Colchester Road-Lewis Park, a group of 141 homes located within the Lincoln-Lewis-Vannoy Conservation District.

TRANSPORTATION IMPROVEMENT DISTRICT LEVIES*

State Route 28 Transportation Improvement District

On each \$100.00 of assessed valuation of the taxable commercial and industrial real estate within the boundary of State Route 28 Transportation Improvement District, as specified by Virginia Code § 15.2-4607 and as set out in Chapter 587 of the 1997 Acts of the General Assembly, the tax rate shall be \$0.18

Phase I Dulles Rail Transportation Improvement District

On each \$100.00 of assessed valuation of the taxable commercial and industrial real estate within the boundary of Phase I Dulles Rail Transportation Improvement District, as specified by Virginia Code § 33.2-2105, the tax rate shall be..... \$0.13

Phase II Dulles Rail Transportation Improvement District

On each \$100.00 of assessed valuation of the taxable commercial and industrial real estate within the boundary of Phase II Dulles Rail Transportation Improvement District, as specified by Virginia Code § 33.2-2105, the tax rate shall be..... \$0.20

*Tax will be levied and collected in two semi-annual tax billings.

SPECIAL SERVICE DISTRICT FOR THE CONTROL OF PEST INFESTATIONS*

On each \$100.00 of assessed valuation of real estate within Fairfax County, but exclusive of the Lake Barcroft Water Improvement District, within the service district established by Appendix I of the Fairfax County Code, the tax rate shall be..... \$0.0010

*Tax will be levied and collected in two semi-annual tax billings.

SPECIAL SERVICE DISTRICT FOR STORMWATER MANAGEMENT*

On each \$100.00 of assessed valuation of real estate within Fairfax County, within the service district, the tax rate shall be \$0.0325

*Tax will be levied and collected in two semi-annual tax billings.

TYSONS TRANSPORTATION SERVICE DISTRICT NO. 1*

On each \$100.00 of assessed valuation of real estate within Fairfax County, within the service district, the tax rate shall be \$0.05

*Tax will be levied and collected in two semi-annual tax billings.

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RESTON TRANSPORTATION SERVICE DISTRICT NO. 1*

On each \$100.00 of assessed valuation of real estate within Fairfax County, within the service district, the tax rate shall be \$0.021

*Tax will be levied and collected in two semi-annual tax billings.

SERVICE CHARGES FOR AMBULANCE TRANSPORT SERVICE

Pursuant to Fairfax County Code § 4-26-1, each person being transported by any emergency medical services vehicle that is operated or maintained by the County or for which a permit has been issued to the County by the Virginia Office of Emergency Medical Services will be charged (1) a service fee of \$500 for Basic Life Support transport (BLS), (2) \$650 for Advanced Life Support, level 1 transport (ALS1), (3) \$800 for Advanced Life Support, level 2 transport (ALS2), and (4) \$12.00 per mile for ground transport mileage. The term "emergency medical services vehicle" has the definition specified in Virginia Code § 32.1-111.1.

GIVEN under my hand this _____ day of May, 2019

By: _____
Catherine A. Chianese
Clerk to the Board of Supervisors

FAIRFAX COUNTY NOTICE OF PROPOSED REAL PROPERTY TAX INCREASE

In accordance with Virginia Code Section 58.1-3321, notice is hereby given that the Board of Supervisors of Fairfax County, Virginia, will meet in the Board Auditorium of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia, on April 9, 2019, at 3:00 P.M. At that meeting, the Board of Supervisors shall consider the matters described below.

The Fairfax County Executive has proposed the advertisement of a real estate tax rate of \$1.15 per \$100 of assessed value. No numerical change in the Real Estate tax rate is being proposed; however, the total assessed value of existing property has increased. It should be noted that the total increase in assessed value of existing properties is expected to be 2.45 percent, including an increase of 2.36 percent for residential real property and an increase of 2.71 percent for non-residential real property. As a result, most property owners will experience an increase in their real estate tax bill. The tax rate being proposed remains the same as FY 2019. Nevertheless, because the average value of real property in Fairfax County has appreciated by at least one percent, Virginia Code Section 58.1-3321 requires Fairfax County to publish the following notice.

Fairfax County, Virginia proposes to increase property tax levies.

1. **Assessment Increase:** Total assessed value of real property, excluding additional assessments due to new construction or improvements to property, exceeds last year's total assessed value of real property by 2.45 percent.
2. **Lowered Rate Necessary to Offset Increased Assessment:** The tax rate which would levy the same amount of real estate tax as last year, when multiplied by the new total assessed value of real estate with the exclusions mentioned above, would be \$1.1225 per \$100 of assessed value. This rate will be known as the "lowered tax rate."
3. **Effective Rate Increase:** Fairfax County, Virginia, proposes to adopt a tax rate of \$1.15 per \$100 of assessed value. The difference between the lowered tax rate and the proposed rate would be \$0.0275 per \$100, or 2.45 percent. This difference will be known as the "effective tax rate increase."

Individual property taxes may, however, increase at a percentage greater than or less than the above percentage.

4. **Proposed Total Budget Increase:** Based on the proposed real property tax rate and changes in other revenues, the total budget of Fairfax County, Virginia, will exceed last year's by 3.04 percent¹.

A public hearing on this issue will be held at 3:00 P.M. on April 9, 2019, in the Board Auditorium of the Fairfax County Government Center at 12000 Government Center Parkway.

All persons wishing to present their views on these subjects may sign up to be placed on the Speakers List at www.fairfaxcounty.gov/bosclerk/speakers-form, call the Office of the Clerk to the Board at (703) 324-3151 to be placed on the Speakers List, or appear and be heard. As required by law, copies of the full text of proposed ordinances, plans and amendments, as applicable, as well as other documents relating to the aforementioned subjects, are on file and may be examined at the Office of the Clerk to the Board of Supervisors, Suite 533 of the Fairfax County Government Center, 12000 Government Center Parkway, Fairfax, Virginia.

ATTACHMENT III

Fairfax County supports the Americans with Disabilities Act by making reasonable accommodations for persons with disabilities. Open captioning will be provided in the Board Auditorium. For sign language interpreters or other accommodations, please call the Clerk's Office, (703) 324-3151, TTY 711 (Virginia Relay Center) no later than 48 hours before the public hearing. Assistive listening devices will be available at the meeting.

The Board will conduct a separate public hearing on the FY 2020 Advertised Budget Plan which will commence on April 9, 2019, at 4:00 PM and on April 10 and April 11 at 1:00 PM.

Copies of the FY 2020 Advertised Budget Plan and the Advertised Capital Improvement Program for Fiscal Years 2020-2024 (With Future Fiscal Years to 2029) are available on the Internet at www.fairfaxcounty.gov/budget.

A Copy - Teste:

Catherine A. Chianese, Clerk
Board of Supervisors

¹ The total budget increase is based on all revenues received by the General Fund of Fairfax County. Projected FY 2020 disbursements reflect an increase of 1.79 percent over the FY 2019 level.

ACTION - 1

Approval of the Disease Carrying Insects Program

ISSUE:

Board approval of the annual submission of the Disease Carrying Insects Program (DCIP).

RECOMMENDATION:

The County Executive recommends that the Board of Supervisors direct staff to take the following actions concerning Fairfax County's Disease Carrying Insects Program:

Mosquitoes, West Nile virus, Zika virus and Other Mosquito-borne Diseases

1. Continue to conduct a county-wide mosquito surveillance program.
2. Continue to test mosquitoes for West Nile virus (WNV), Zika virus, and other pathogens as necessary.
3. Continue inspections and larviciding of mosquito breeding areas in the County using appropriate and approved larvicides according to established criteria in as many rounds during the mosquito season as necessary.
4. Continue to conduct an aggressive community outreach and education program to increase County residents' awareness of mosquitoes, West Nile virus, Zika virus, and other mosquito-borne diseases, as well as personal protection and prevention methods.
5. Continue to use adult mosquito control methods as necessary to protect public health.

Ticks, Lyme disease, and other Tick-borne Diseases

1. Continue to conduct tick surveillance activities.
2. Continue to test ticks for pathogens, including the bacteria that causes Lyme disease.
3. Continue to conduct a county-wide community outreach and education program to increase County residents' awareness of ticks, Lyme disease,

and other tick-borne diseases, as well as personal protection and prevention methods.

Other Disease-transmitting Insects of Public Health Importance

1. Continue to work with Environmental Health staff to provide information on other disease-transmitting insects of public health importance.

Board action on this item will cover all Disease Carrying Insects Program activities carried out through June 30, 2020.

TIMING:

Board approval is requested on March 5, 2019, in order to (1) continue mosquito suppression strategies (e.g., surveillance, larviciding mosquito breeding areas, and public outreach), (2) continue tick surveillance program and public outreach and (3) continue outreach and education efforts for other disease-transmitting insects.

BACKGROUND:

The *Code of the County of Fairfax, Virginia* requires the submission of the annual Disease Carrying Insects Program for Board of Supervisors' approval. (Appendix I, Section 7) The Annual Report for the program (Attachment I) provides an overview of many program activities and highlights the importance of vector-borne disease prevention and control.

West Nile Virus, Zika virus, and Other Mosquito-borne Diseases

During 2018, West Nile virus (Attachment II) continued to inflict disease and death across the continental United States as anticipated by the Centers for Disease Control and Prevention (CDC). Fairfax County WNV surveillance activities indicated that the virus was present and widespread throughout the County. By the end of the 2018 WNV season, the virus had been detected in mosquitoes collected in many of the surveillance stations in the County. Nine human cases were reported in the County in 2018, five in 2017, and no cases were reported in 2016. Four fatal cases in the County since 2002 underlie the potential severity of this disease. A record number of 47 WNV cases were reported in Virginia in 2018. Seven WNV-related deaths were also reported in Virginia in 2018. Many factors have been suggested as influencing the presence of human cases in the County:

1. Viral activity in the mosquito vectors as found in the surveillance efforts;
2. Presumed feeding habits of *Culex pipiens*;
3. Birds acting as natural amplifiers of the virus;
4. Ambient temperatures which influence the development of the virus within the mosquito;

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5. Increased public awareness resulting in increased use of personal protection measures; and
6. Proactive larvicide and adulticide treatments to help control *Culex* mosquitoes.

Due to the flood-prone nature of the area, the DCIP maintains surveillance and treatment activities in the Huntington area.

Based on past surveillance information, the DCIP will continue mosquito inspection and larviciding activities in stormwater ponds that are identified as a result of the larval surveillance activities, as was done in the 2018 mosquito season. The DCIP will initiate inspection activities in the spring and continue for the duration of the season. In 2019, staff will continue to use mobile GIS technology to efficiently perform these activities.

As in previous seasons, DCIP staff will continue to carry out mosquito surveillance activities during mosquito season (May to October). The Fairfax County Health Department's Division of Epidemiology and Population Health will continue to carry out human case surveillance for locally-acquired or travel-associated mosquito-borne disease. The Mosquito Surveillance and Management Subcommittee, a group with stakeholders from multiple County agencies as well as other jurisdictions covered by the program, will meet again this year.

The Health Department Laboratory began testing mosquitoes using molecular diagnostics in 2012. The laboratory offers WNV and Zika virus testing for mosquito samples and Lyme disease testing for tick samples. In 2019, all mosquito testing and tick testing will be performed by the Health Department Laboratory.

All insecticides used in this program are registered with the U.S. EPA and sanctioned for use by the Commonwealth of Virginia. The principal larvicides that the County will use are Spinosad, *Bacillus sphaericus* and *Bacillus thuringiensis* var. *israelensis* (Attachments III, IV, V, VI, VII and VIII). Some applications may require a mineral oil-based pupicide to control immature mosquitoes (Attachment IX). The Health Department has the ability to apply pesticides for adult mosquitoes should the public health need arise; however, this type of control is not routinely performed by the Health Department. The Health Department may apply insecticides to control adult mosquitoes, and in these instances, the application will target those mosquitoes which potentially transmit disease to humans. The following indicators may trigger adult mosquito spraying by the Health Department:

- Results of mosquito surveillance and testing,
- Environmental factors that impact mosquito or disease cycles,
- Detection of medically-important invasive species, or
- Reported cases of human disease.

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The Health Department does not spray for nuisance mosquitoes. Synthetic pyrethroids (Attachments X and XI) or other insecticides may be used to control adult mosquitoes. All applications of pesticides will be performed by certified applicators according to the label directions. In 2018, the Health Department began performing insecticide resistance testing on potential medically-important mosquitoes. This will continue in 2019.

The DCIP will continue to utilize an active and engaging outreach and education strategy. The program will also focus messaging to address at-risk groups, such as residents over 60 years of age who are at greater risk of developing a more severe form of the West Nile virus. Because the Zika virus has the potential to cause birth defects, specific messaging has also been developed for pregnant women and their partners to help minimize exposure. The program will again work with the Health Department's Community Outreach team to deliver its public health messages to the County's diverse population while continuing to seek out new ways to provide prevention messaging to the community. In 2018, the DCIP's outreach activities included providing 32 educational and safety presentations and attending 37 events as well as the preparation and production of another 18-month calendar full of educational information that was widely distributed to County residents. A music video on Lyme disease and tick bite prevention was produced with the assistance of Channel 16 in 2018.

The Disease Carrying Insects Program Annual Report highlights the 2018 season activities and presents wide-ranging plans for minimizing the impact and risk of mosquito-borne diseases through:

1. Countywide monitoring of WNV activity including mosquito and human surveillance;
2. An integrated approach to mosquito management and control practices, which will primarily target those mosquito species that have been shown to be the most probable WNV vectors in the County;
3. An intensive community outreach and education program to increase awareness of mosquitoes and WNV and other mosquito-borne diseases in County residents; and
4. A continuation of the multi-jurisdictional and multi-agency collaboration efforts to identify ways to minimize the risk of WNV transmission.

The Chikungunya virus (CHIKV) and the Zika virus (ZIKAV), which are transmitted by *Aedes* mosquitoes, began circulating in the Americas in 2013 and 2015, respectively (Attachments XII, XIII and XIV). Locally-acquired cases of both viruses have been reported in many countries in the Americas. In Virginia, cases have been reported in returning travelers; however, mosquito-borne transmission of ZIKAV and CHIKV in the continental United States has been reported in Florida and Texas. If locally-acquired cases of CHIKV or ZIKAV are identified in the County, the Health Department will utilize guidance from the Centers for Disease Control and Prevention and the Virginia

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Department of Health in their response activities, which would include case investigation, vector surveillance and control activities, and community education.

In 2018, Health Department staff maintained vigilance for the possibility of locally-transmitted ZIKAV following the large outbreak in the Americas that began in 2015 and continued through 2017. The Health Department engaged stakeholders and the community about mosquito and mosquito bite prevention methods. The Health Department will continue monitoring for locally-transmitted ZIKAV and will engage their partners and the community to protect County residents.

Tick-Borne Disease

During 2018, Lyme disease (Attachment XV) continued to be a major concern for County residents and it was the most frequently-reported vector-borne disease in the County. The Health Department recorded and reported at least 91 cases of Lyme disease in Fairfax County in 2018. Some of the factors that influence Lyme disease in the County include:

1. Presence of the Lyme disease-causing bacteria in the black-legged tick vectors;
2. White-footed mice and other animals acting as natural amplifiers of the bacteria;
3. Large deer populations that act as a tick transport system, distributing the ticks throughout the County, as well as a source of blood for the females to develop their eggs; and
4. Increased public awareness resulting in increased use of personal protection measures.

Health Department staff plan to continue to perform tick surveillance, tick ID service, collections from veterinary clinics, collections from deer hunts, and human case surveillance in 2019.

The Health Department will continue to include tick prevention and personal protection from ticks in its outreach and education strategy. The Disease Carrying Insects Program Annual Report reviews the 2018 season activities and presents wide-ranging plans for minimizing the impact and risk of tick-borne diseases through:

1. Surveillance for the presence of Lyme disease and other tick-borne pathogens, including black-legged (deer) tick and human case surveillance;
2. An aggressive and intensive community outreach and education program to increase tick, Lyme disease and tick-borne disease awareness in the County; and
3. A continuation of the multi-jurisdictional and multi-agency collaboration efforts to identify ways to minimize the risk of Lyme disease transmission.

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Other Disease-transmitting Insects of Public Health Importance

The DCIP's 2018 Annual Report presents plans for minimizing the impact and risk of other diseases transmitted by insects through:

1. An intensive community outreach and education program to increase awareness of other insects that may transmit diseases of public health importance.

FISCAL IMPACT:

The Disease Carrying Insects Program is primarily funded by a Special Service District for the Control of Infestations that May Carry a Disease that is Dangerous to Humans, Gypsy Moth, Fall Cankerworm, and Certain Identified in Fund 40080, Integrated Pest Management Program. No additional funding is required as the current funding level is sufficient to meet anticipated program needs.

ENCLOSED DOCUMENTS:

Attachment I - Disease Carrying Insects Program Annual Report
Attachment II - CDC WNV Fact Sheet
Attachment III - Natular G Label
Attachment IV - Natular G30 Label
Attachment V – VectoBac G Label
Attachment VI - VectoLex WSP Label
Attachment VII - VectoLex FG Label
Attachment VIII – VectoMax FG Label
Attachment IX - Cocobear Label
Attachment X - Flit 10EC Label
Attachment XI – Aqua Zenivex E20 Label
Attachment XII - CDC Chikungunya Fact Sheet
Attachment XIII - CDC Zika Fact Sheet
Attachment XIV - Zika Fact Sheet
Attachment XV - CDC Lyme disease brochure

STAFF:

Tisha Deeghan, Deputy County Executive
Gloria Addo-Ayensu, MD, MPH, Director of Health
Pieter Sheehan, Director of Division of Environmental Health

Disease Carrying Insects Program Annual Report

Presented by

**Pieter A. Sheehan, REHS
Director of Environmental Health
Fairfax County Health Department**

March 5, 2019



This information can be made available in an alternative format upon request. Please call 703-246-2300 / TTY 711. Allow seven working days for preparation of the material.

Mosquitoes, ticks and other vectors are responsible for transmitting pathogens that can result in life-changing illnesses such as West Nile virus, Lyme disease, and the Zika virus. The Health Department's Disease Carrying Insects Program was established in 2003 and works to protect county residents and visitors from vector-borne diseases. The program uses an integrated approach to monitor and manage vectors. The program continuously promotes personal protection and vector prevention methods in the community to raise awareness of these public health pests, the diseases they transmit, and what residents can do to protect themselves.

Vision, Mission and Values

As part of the Health Department, the Disease Carrying Insects Program strives to help the agency meet its goals and embody the Vision, Mission and Values of the department.



West Nile Virus

The United States continued to experience the effects of West Nile virus (WNV) in 2018 with cases and deaths throughout the country. During 2018, at least 2,544 human cases with 137 deaths were reported to the Centers for Disease Control and Prevention (CDC).¹ From 1999 when the first locally-acquired cases of WNV were reported in New York through 2017, there have been 48,183 reported cases and 2,163 reported deaths in the United States.

In Fairfax County, WNV was first detected in 2000, when the virus was detected in a dead crow. In 2001, additional infected birds were detected and in 2002, the virus was found in birds, horses, mosquitoes and humans. There were a record number of human cases (48) and eight deaths reported in Virginia in 2018. Nine cases of WNV, including one death were reported in Fairfax County in 2018. From 2003 to present, there have been 224 human cases of WNV and 21 WNV-associated deaths in Virginia. In that same time period, 59 human WNV

¹ 2018 provisional data obtained from CDC web site.

cases, including five deaths, were reported in Fairfax County. The primary vectors of WNV in our area are *Culex pipiens* and *Culex restuans*. The virus is normally transmitted between these mosquitoes and certain types of birds which serve as a reservoir or source of the virus. Humans and horses can be infected with WNV which may result in clinical illness or death. Mosquitoes cannot spread WNV from person to person.

Other Mosquito-borne Diseases

The Chikungunya virus (CHIKV) and the Zika virus (ZIKAV) began circulating in the Americas in 2013 and 2015, respectively. These viruses are transmitted by certain types of container-breeding *Aedes* mosquitoes. Locally-acquired cases of both viruses have been reported in many countries in the Americas. In 2016, an outbreak of ZIKAV was widespread throughout much of the western hemisphere. Other travel-associated, mosquito-borne diseases routinely reported to the CDC include dengue (DENV) and malaria.

Zika is of particular public health importance because it can be passed from a pregnant woman to her fetus and infection during pregnancy can cause certain birth defects. About 5-10% of babies of women with confirmed Zika virus infection during pregnancy had Zika-associated birth defects. The highest risk of birth defects is from Zika virus infection during the first trimester of pregnancy.

Since the 2016 outbreak, the number of Zika cases reported annually has decreased. We continue to maintain vigilance due to the public health importance of this disease. There have been 64 Zika cases reported in the US for 2018. In 2016, 4,897 travel-associated Zika cases in the US were reported to CDC and 437 in 2017.² In Virginia, 1 travel-associated case was reported in 2018, seven in 2017 and 112 in 2016. In 2018, 83 cases of CHIKV were reported in the U.S., with three of those cases being reported from Virginia.¹ Cases of dengue are reported in the continental U.S. annually. Most reported cases of dengue are travel-related. Malaria, a parasitic disease transmitted by mosquitoes, is reported from approximately 1,500-2,000 travelers each year.

Occasionally, local mosquitoes can acquire these pathogens from infected individuals and transmit these diseases in the continental U.S. The only evidence of local mosquito transmission of the Zika virus in the continental United States so far has been in Florida and Texas. There were 224 reported cases of presumed mosquito-transmitted Zika in those two states in 2016 and 4 reported in 2017. Cases in the US have also been reported where the virus was acquired through other routes, primarily sexual transmission, in both 2016 and 2017. To date, the only evidence of local mosquito-borne transmission of CHIKV has been in Florida and Texas. Over the last several years, sporadic DENV outbreaks have been identified in Florida. Local transmission of malaria has occurred in several locations in the U.S. In the last 20 years, it has occurred twice in Virginia with a total of 4 reported cases. If there are locally-acquired cases of CHIKV, DENV, ZIKAV or malaria in the County, the Health Department will utilize guidance from the CDC and Virginia Department of Health (VDH).

Tick-borne Disease

Tick-borne diseases are the most commonly reported vector-borne diseases in the United States. Lyme disease, transmitted by the blacklegged tick is common in many areas of

² Data obtained from CDC web site; 2018 data are provisional.

the United States, including Virginia. Fairfax County began tick and Lyme disease surveillance in 2005 with a small pilot program. In light of significant results from the first year of tick surveillance, the DCIP implemented an enhanced surveillance program in subsequent years.

Tick-borne diseases continue to impact public health causing serious acute illness, long-term effects and, sometimes, death. The recent and widespread encroachment of suburban sprawl into areas that were once undeveloped or farmland, and the large deer populations in these suburban communities, have increased the prevalence of disease-carrying ticks and the exposure of the human population to the disease pathogens they carry.

Other Disease Transmitting Insects of Public Health Importance

Other insects with the potential to transmit disease can be found throughout Fairfax County. These insects or the conditions that allow them to proliferate, could, at times, be considered public health or safety menaces.

Human Case Surveillance

West Nile virus, Lyme disease, and other vector-borne diseases are among the over 70 notifiable diseases and conditions in Virginia. The Fairfax County Health Department (FCHD) uses enhanced passive surveillance to monitor physician and laboratory reporting of these diseases.

The Health Department encourages physicians and laboratories to report cases of these illnesses by educating medical practitioners about the importance of reporting vector-borne diseases and by contacting key medical staff at hospital centers to inquire about potential cases. See Table 1 for selected reported cases.

Integrated Mosquito Management

The Disease Carrying Insects Program uses Integrated Mosquito Management (IMM) principles to carry out its duties. This comprehensive program utilizes three basic strategies: surveillance, control, and public education.

Table 1: Reported Human Cases of Vector-borne Disease, Fairfax County

Condition	Number of Cases, Fairfax Health District	
	CY 2017	CY 2018*
Mosquito-borne Disease		
WNV (neuroinvasive and non-neuroinvasive)	5	9
Dengue**	3	4
Chikungunya**	3	2
Malaria**	24	23
Tick-borne Disease		
Lyme Disease	171	91
Ehrlichiosis/Anaplasmosis	12	15
Spotted Fever Rickettsiosis	22	12
Babesiosis**	0	1
Other Vector-borne Disease		
Chagas Disease**	1	2

*2018 data are provisional and subject to change.

**Travel-associated cases.

Integrated Mosquito Management is a comprehensive mosquito prevention/control strategy that utilizes all available mosquito control methods singly or in combination to exploit the known vulnerabilities of mosquitoes to reduce their numbers to tolerable levels while maintaining a quality environment. IMM does not emphasize mosquito elimination or eradication. Integrated mosquito management methods are specifically tailored to safely counter each stage of the mosquito life cycle. Prudent mosquito management practices for the control of immature mosquitoes include such methods as the use of biological controls, source reduction, water sanitation practices as well as the use of EPA-registered larvicides. When source elimination or larval control measures are not feasible or are clearly inadequate, or when faced with imminent mosquito-borne disease, application of EPA-registered adulticides by applicators trained in the special handling characteristics of these products may be needed. Adulticide products are chosen based upon their demonstrated efficacy against species targeted for control, resistance management concerns and minimization of potential environmental impact.

IMM requires a thorough understanding of mosquitoes and their bionomics by control personnel; careful inspection and monitoring for their presence and conditions favoring their development; and prevention of oviposition and human/mosquito contact through effective public education, sanitation and facility maintenance. The Disease Carrying Insects Program strives to employ these IMM components to the extent possible, but resource availability may limit what the program will do.

All intervention measures will be driven by a demonstrated need based on surveillance data and action thresholds. IMM is knowledge-based and surveillance-driven, and when properly practiced is specifically designed to accomplish the following:

1. Protect human, animal and environmental health.
2. Promote a rational use of pesticides.
3. Reduce environmental contamination to soil, ground water, surface water, pollinators, wildlife and endangered species as a result of mosquito control activities.
4. Utilize biological controls (native, noninvasive predators) to conserve and augment other control methods.
5. Utilize source reduction (elimination, removal or reduction of larval mosquito habitats) where practical and prudent.
6. Use target-specific pesticides at the lowest effective rates to the extent possible.
7. Emphasize the proper timing of applications.
8. Minimize pesticide resistance problems.

Surveillance

Surveillance is essential to an integrated pest management program. The DCIP conducts surveillance for different vectors and some of the diseases they may carry. Surveillance is done for both adult (flying) and immature (swimming) mosquitoes and for West Nile and Zika viruses. It is important to note that absolute high numbers of mosquitoes do not necessarily reflect high risk of human infection with WNV or other mosquito-borne disease. Surveillance for other vectors such as ticks is also performed.

Adult Mosquito Surveillance: The program is anchored by a strong surveillance component that will monitor abundance and viral activity during the 2019 mosquito season. During the

2018 season Fairfax County continued its comprehensive mosquito surveillance program at 74 fixed, weekly collection sites (Figure 1) for a total of 4,705 trapping periods. A trap period is defined as a trap collecting mosquitoes for 24 hours. Three trap sites were also used as part of a project at the Police Training Facility in Chantilly in 2018. Those trap collections are included on the maps, overall routine collection numbers, and testing results, but not included in the graphs showing weekly average of *Aedes albopictus* in BG traps. Prior to the 2018 season, staff optimized routing using available Geographic Information Systems (GIS) software.



Figure 1. 2018 Routine Mosquito Trap Sites.

The program uses three types of adult mosquito traps: CDC miniature light traps, gravid traps, and BG Sentinel traps. All sites had one CDC miniature light trap and one gravid trap. The number of BG Sentinel trap sites increased from 28 to 29 in 2018.



Figure 2: Staff sorting and identifying mosquitoes (left) and mosquitoes through the microscope (right).

During the 2018 mosquito surveillance season, 227,936 mosquitoes were identified (Figure 2) from routine trapping activities. An additional 2,701 adult mosquitoes were collected through non-routine trapping. Record rainfall was seen in 2018, with several large rainfall events occurring during the mosquito season that lead to an increased number of floodwater mosquitoes collected in the surveillance traps. Several species of floodwater mosquitoes were collected in higher numbers than in previous years. The yellow fever mosquito *Aedes aegypti*, which has historically been rare in Virginia, has been found annually in the region since 2011 when an overwintering population was identified in Washington, D.C. Each year since 2015, the yellow fever mosquito has been detected with increasing frequency at routine trap sites in Fairfax County. Although numbers of mosquito individuals at these locations remain relatively low (usually a single adult in a trap), continued surveillance and multiple types of control are necessary to continue limiting the species' ability to establish here.



Figure 3: CDC Miniature Light Trap (left) and Gravid Trap (right).

The **CDC miniature light trap** (Figure 3) is a trap that collects mosquitoes that are searching for something to bite. This trap is baited with carbon dioxide (dry ice) and a small light. This trap typically collects the greatest variety of mosquitoes and 36 different species were collected in 2018 (Figure 4). In

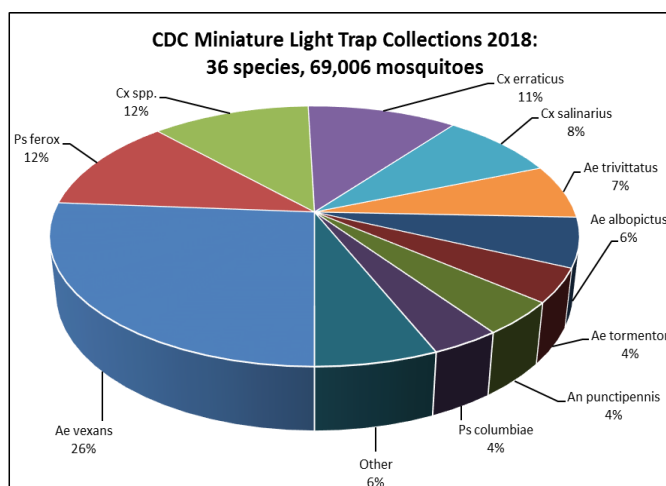


Figure 4: CDC Miniature Light Trap Collections, 2018.

2018, the CDC traps were set for 1,913 trap periods and collected over 69,000 mosquitoes.

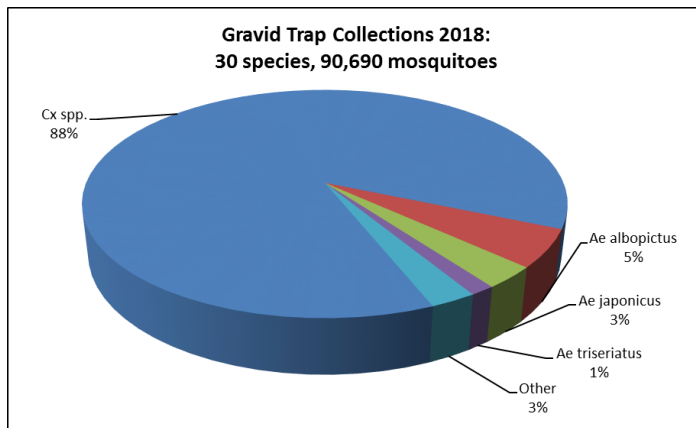


Figure 5: Gravid Trap Collections, 2018.

The **gravid trap** (Figure 3) is a trap that collects mosquitoes that are looking for a place to lay their eggs. This trap is baited with an infusion (water, grass, straw, yeast) that is attractive to the *Culex* mosquitoes that are the primary vectors of WNV. The majority of mosquitoes collected in this trap are *Culex* species (*Culex pipiens* and *Culex restuans*) (Figure 5). In 2018, this trap was set for 2,047 trap periods and collected over 90,000 mosquitoes. Thirty different species

of mosquitoes were collected in the trap in 2018, but 88 percent were *Culex* species. In 2018, the population of *Culex* mosquitoes was impacted by the large rainfall events and varied widely from the average of the previous five years (Figure 6).

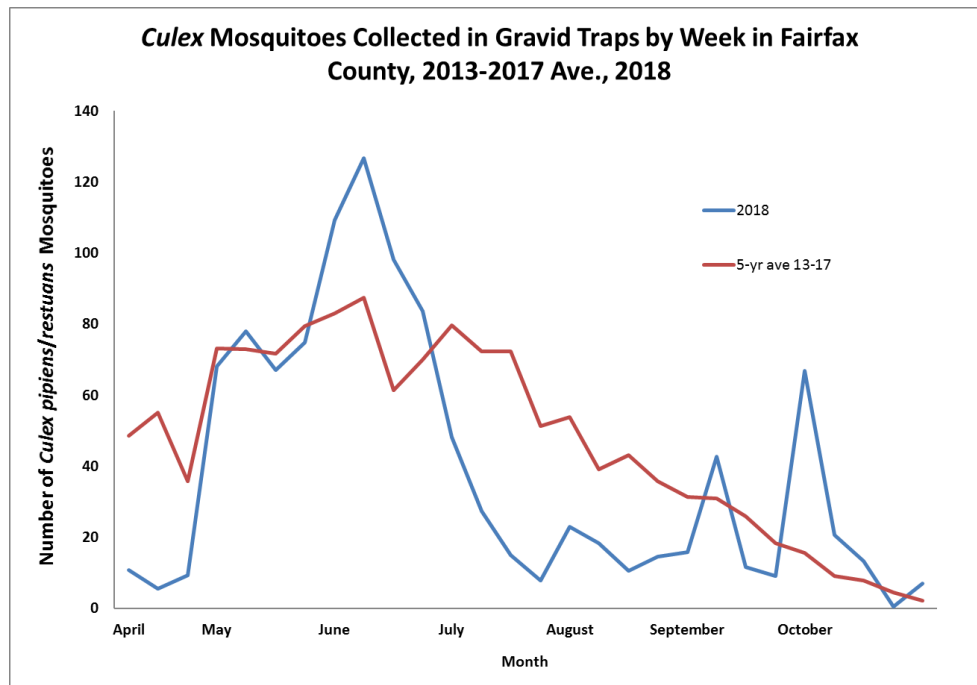


Figure 6: Average Number of *Culex pipiens/restuans* collected in Gravid Traps, 5 year average and 2018.

The **BG Sentinel trap** (Figure 7) is another trap that collects mosquitoes that are looking for something to feed on. This trap is baited with carbon dioxide (dry ice) as well as a special lure that is based on the scent of human sweat. This trap collected 35 mosquito species throughout the 2018 season, but it is most effective at collecting *Aedes albopictus* (Figure 8), a



Figure 7: BG Sentinel Trap.

potential vector of a variety of pathogens including the Zika virus which is widespread throughout the County and present in most yards. In 2018, the trap was set for 745 trap periods at the fixed mosquito trap sites and collected over 68,200 mosquitoes. *Aedes albopictus* followed the same general trends seen in the previous five years, with a few weeks where the average number of mosquitoes per trap was much higher or much lower than the multi-year

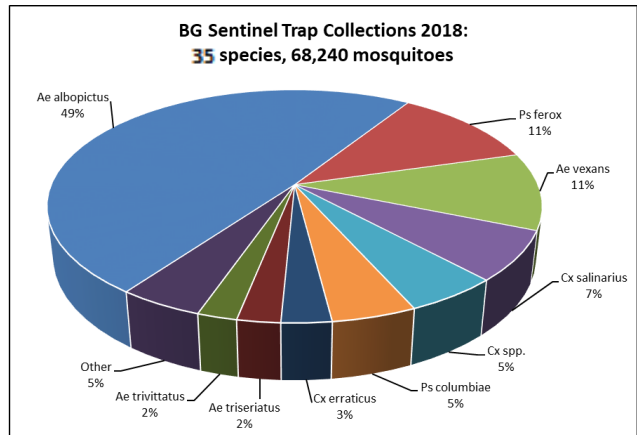


Figure 8: BG Sentinel Trap Collections, 2018.

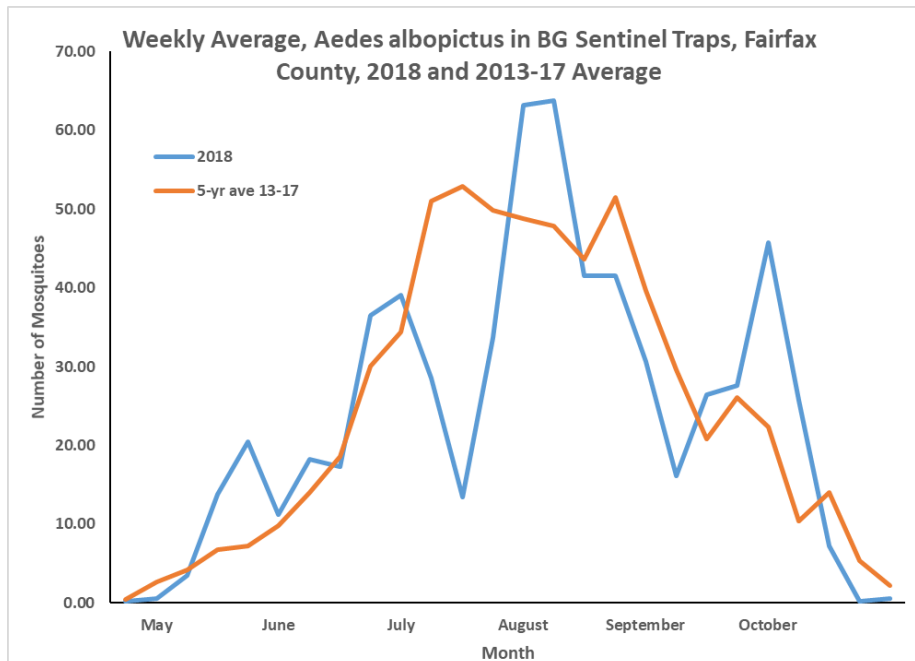


Figure 9: Average Number of *Aedes albopictus* Collected in BG Sentinel Traps, 2018 and 5-year average.

average (Figure 9).

Mosquito Testing. In the 2018 mosquito season, 147,018 mosquitoes were tested in 5,077 pools. A mosquito pool is a batch of up to 50 mosquitoes of the same species from the same trap, location and trap period. These pools included mosquitoes collected outside of normal routine surveillance activities. There were 359 positive WNV pools. Positive mosquitoes were found throughout the county (Figure 10). During 2017, 160,381 mosquitoes were tested

in 5,085 routine pools, of which 307 were positive. In 2018, *Culex* species of mosquitoes (*Culex pipiens* and *Culex restuans*) tested positive for West Nile virus as well as *Aedes albopictus*, *Aedes japonicus*, *Aedes vexans*, and *Culex salinarius*. In previous years, two other species have also tested positive for WNV in the County. Most of the mosquitoes tested were *Culex* species

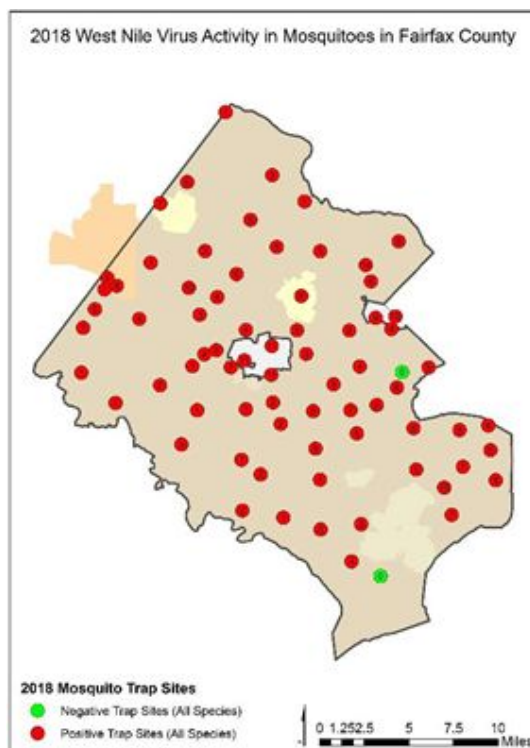


Figure 10: Map of WNV-positive Mosquito Trap Sites, 2018.

(*pipiens* or *restuans*) collected in gravid traps. Most of the positive mosquito pools were *Culex* species from the gravid trap. The first WNV-positive mosquitoes of 2018 were *Culex* species collected in a gravid trap early June. The infection rate of *Culex* species tested from gravid traps was calculated throughout the season. The peak infection rate (maximum likelihood estimate:

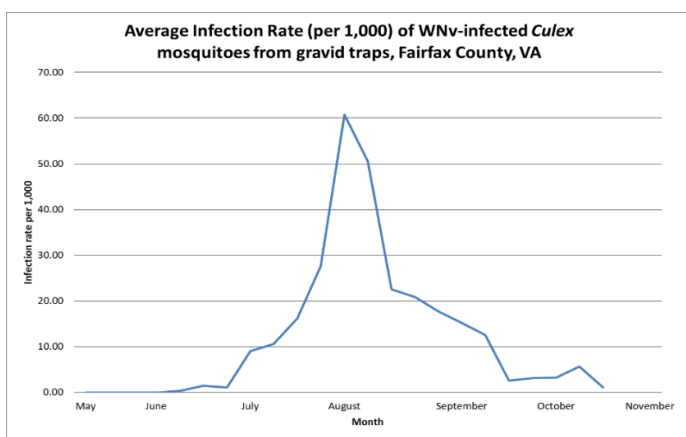


Figure 11: West Nile Virus Infection Rate (Maximum Likelihood Estimate) in *Culex* species collected in Gravid Traps, 2018.

MLE) in 2018 came in late July and early August when the MLE was calculated at 60.74 mosquitoes per 1,000, which was the highest infection rate that has been calculated or observed in Fairfax County. The last positive mosquitoes were collected in mid-October (Figure 11). The infection rate followed the same general trend seen in previous years, although the peak was seen earlier.

A subset of the mosquito pools submitted was also tested for Zika virus. No mosquito pools were positive for Zika virus.

Tick Surveillance: In 2018, 1,299 ticks (including 592 blacklegged ticks) were collected throughout the year using various techniques including carbon dioxide-baited traps, tick drags, tick flags, collecting off harvested deer and collections from vet clinics. Most of the ticks collected in 2018 were from the veterinary clinics (n=569) and harvested deer (n=564). The blacklegged tick *Ixodes scapularis* was the most abundant tick collected.

An invasive tick species, *Haemaphysalis longicornis* or the Asian longhorned tick, was first reported in New Jersey in late 2017. After reviewing archived specimens, a single tick of this species was identified from collections made in Fairfax County in 2017. This tick has since been found in several other areas of Virginia and the mid-Atlantic region. To date, no additional specimens of this tick have been identified from Fairfax County. This tick transmits a variety of pathogens to humans and animals in other parts of the world; however, its medical importance in the western hemisphere is uncertain.

Tick testing for Lyme disease was made available at the Health Department Laboratory in 2016. Blacklegged ticks from 2018 (n=265) have been submitted for testing. Sixteen of the 146 blacklegged ticks tested (11%) from 2017 were positive for the Lyme disease bacteria. Ticks that have been feeding are not submitted for testing per protocol as the vertebrate blood in the ticks may interfere with the testing. As in previous years, tick surveillance and the tick identification service will be conducted by existing staff in the DCIP and will follow previously-established protocols.

Control

Mosquito control is a component of an integrated management program. Routine and non-routine control decisions take a variety of factors into consideration including mosquito species, presence of mosquito-borne disease, proximity to people, mosquito tolerance, weather patterns, environment, non-target impacts, health and safety, mosquito habitat, and accessibility for surveillance and treatment. Pesticide applications are made according to the product label. Federal and state regulatory guidance is adhered to.

Larval Control: In 2016, the program embarked on a project to evaluate county-maintained stormwater dry ponds and their mosquito production. This activity continued in 2018. From April through October, both seasonal and merit staff checked 1,364 individual storm water sites throughout the county. These sites are inspected multiple times during the season and a total 7,182 inspections (e.g, Figure 12) was completed in 2018. Of those inspections, over 4,700 had water that could be sampled for mosquitoes. There were over 1,850 inspections where mosquito larvae were collected; 930 had enough immature mosquitoes to meet the



Figure 12: Staff inspecting and treating a storm water pond.

treatment threshold (3 immature mosquitoes per dip or sample with a minimum of 3 dips). A total of 1,166 treatments were made with either Natular G, VectoMax or Cocobear. All applications were made by certified pesticide applicators or registered technicians and were made according to label guidelines.

Using available GIS software, staff created new larval inspection districts for 2018. Two mobile applications available through the county's GIS software were customized to streamline field and laboratory data collection processes. The apps took the place of hundreds of paper maps and forms and greatly increased staff efficiency in the field, laboratory, and office. Staff are working on incorporating this technology into adult mosquito surveillance activities as well.

Adult Control: While source reduction and the application of larvicides are the principal and most effective interventions to reduce mosquito populations, situations may arise in which infected adult mosquitoes are present in significant numbers and pose a threat to human health. In these situations, judicious application of adulticides to control mosquito populations will be added to all other mosquito control activities as an additional measure to reduce vector populations.

Guidelines from CDC state that adulticiding based on surveillance data is an extremely important part of any integrated mosquito management program and should be used when there is significant risk of human illness. The Health Department may apply insecticides to control adult mosquitoes, and in these instances, the application will target those mosquitoes which potentially transmit disease to humans. The following indicators may trigger adult mosquito spraying by the Health Department:

- Results of mosquito surveillance and testing,
- Environmental factors that impact mosquito or disease cycles,
- Detection of medically-important invasive species, or
- Reported cases of human disease.

The Health Department is equipped to apply pesticides for adult mosquitoes should the public health need arise. The program has increased its capacity to respond to mosquito-borne public health threats by purchasing additional equipment to include backpack sprayers (Figure 13), a truck-mounted ultra-low volume (ULV) sprayer (Figure 14), and a backpack ULV sprayer.



Figure13: Application with a backpack sprayer.



Figure 14: Ultra-low volume sprayer mounted in the back of a pick-up truck.

Synthetic pyrethroids or other insecticides may be used to control adult mosquitoes. All applications of pesticides will be performed by certified applicators according to the label directions. Targeted mosquito spraying was done in 2005, 2006, 2007, 2016 and 2017. In 2018, seven pesticide applications were made to control adult mosquitoes. Treatments were made using a backpack blower or backpack ULV sprayer. AquaZenivex E20 or Flit 10EC were used to control adult mosquitoes.

In 2018, staff began performing pesticide resistance testing on adult mosquitoes to help ensure mosquito spraying is effective and help guide local mosquito control efforts. This activity will continue to be performed using the active ingredients of the pesticides used by the program against potential vector mosquitoes.

Community Outreach and Education



Figure 15: Pictures from selected outreach activities.

Fairfax County will continue to emphasize personal protection measures from mosquito bites, mosquito-borne disease, and mosquito prevention and control. This is done through distribution of informational materials, media interviews, advertising, Web pages, presentations, community events (Figure 15), and collaborations with community groups and homeowners associations. In 2019, the program will also continue its tick outreach activities as originally requested by the BOS.

The 14th 18-month “Fight the Bite” calendar was produced in 2018. The calendar was once again distributed to fourth graders in all Fairfax County Public Schools prior to the end of the school year. Other materials were updated in 2018 including a new version of the Tick ID card. The calendar, storybooks, and other materials were distributed at various events and venues throughout the County, including libraries, recreation centers and other County offices. (See Figure 16 for examples of outreach material.)



Figure 16: Some examples of outreach material.

The demand for educational material, especially information on mosquitoes, was high in 2018. In addition to the demand for materials, DCIP staff attended multiple events giving approximately 32 educational and safety presentations and participating in 26 other community-based events such as health fairs, Celebrate Fairfax, Fall for Fairfax KidsFest, and

SpringFest. The DCIP worked with other Health Department staff to develop a mosquito and tick prevention presentation that was translated into Spanish and Chinese. Health Department Outreach staff gave presentations and provided mosquito and tick prevention information at 37 additional events in 2018.

Program staff collaborated with Channel 16 to produce a music video entitled “Tick Check 1,2” which was released in May of 2018. Program staff worked with the Health Department’s Communications team to develop a marketing strategy using the music video as a starting point. The video was the most popular on the County’s YouTube channel in 2018 and has over 13,000 views.

The program will continue to work with the Health Department’s Communications Office, Community Outreach Team and Division of Epidemiology and Population Health to develop messaging and provide messaging to all communities within the County.

New outreach materials in 2019 include a new 18-month calendar and a new music video about WNV prevention, the latter another collaborative effort with Channel 16.

Service Requests: The FCHD continued to promote source reduction (elimination of mosquito breeding sites) in 2018 through the outreach campaign. The Asian tiger mosquito (*Aedes albopictus*) was the source of the majority of mosquito-related complaints. This mosquito, which generally lays its eggs in and develops in containers (Figure 17), is an aggressive, persistent biter that can be found in large numbers around residences. The most commonly identified breeding sites contributing to the presence of *Aedes albopictus* around inspected



Figure 17: Some of the container breeding sites found on service requests.

homes were household containers, corrugated downspout extensions, gardening containers/flower pots or saucers, trash/recycling containers, and tarps. The presence of black corrugated pipes at the end of the downspouts from the roof gutters, even when placed underground, continue to be a frequent source of mosquito problems. Most of these corrugated pipes do not drain adequately and they retain water throughout the season, thus providing great mosquito breeding habitat. This mosquito is a potential vector of the Chikungunya, dengue, West Nile and Zika viruses. During 144 site visits and inspections in 2018,

DCIP and Environmental Health staff educated property owners and managers about the benefits of eliminating breeding sites and/or provided Mosquito Dunks®.

Tick Identification Service: The Health Department's tick identification service encourages County residents to bring their ticks to the Health Department to help raise awareness of Lyme disease and provide information on ticks and tick-borne diseases. In 2018, 235 specimens were brought to the Health Department for identification. Of these, 217 were ticks: 174 Lone Star ticks (*Amblyomma americanum*), 23 American Dog ticks (*Dermacentor variabilis*), 19 blacklegged ticks (*Ixodes scapularis*) and 1 Gulf Coast tick (*Amblyomma maculatum*) were brought to the tick identification service (Figure 18).

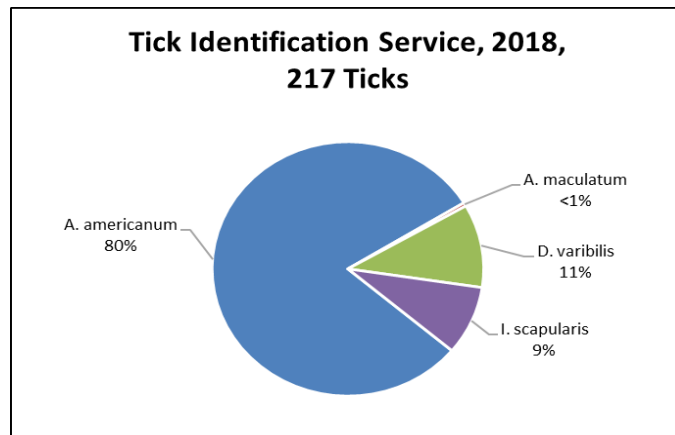


Figure 18: Ticks identified through walk-in Tick ID Service, 2018.

Preparedness and Response Activities

In 2016, the World Health Organization declared Zika virus to be a "Public Health Emergency of International Concern" due to the ongoing epidemic and concern about Zika's relationship to birth defects including microcephaly. The CDC and VDH continuously provided guidance before and throughout the 2016-17 mosquito seasons. The Fairfax County Health Department's Incident Command System (ICS) was active from March through October both years as staff worked together to develop a response plan and educate and engage the community and stakeholders. The Disease Carrying Insects Program worked together with Fairfax County Health Department staff and other stakeholders to help prepare for any potential local, mosquito-borne ZIKAV transmission.

The Division of Epidemiology and Population Health of the Health Department performed human case investigations and coordinated human testing. The Health Department Laboratory also helped with human testing coordination. Environmental investigations and mosquito-related activities were performed by DCIP staff and continue to be performed when cases are identified. These activities included site visits, education and outreach, source reduction, vector surveillance and vector abatement activities. The Health Department Laboratory performed mosquito testing for ZIKAV. These actions taken by the Health Department laid the foundation for how the agency may respond in similar scenarios involving this mosquito vector.

The Division of Environmental Health has taken additional steps to increase preparedness within the agency by moving forward with a plan to have all Environmental Health staff become certified pesticide applicators. To date, 46 merit Environmental Health staff (88%) are current Certified Pesticide Applicators with the Virginia Department of Agriculture and Consumer Services. Staff have worked with community partners and stakeholders to create a recertification class for staff in 2019. The remaining Environmental Health staff will be certified in 2019.

Climate change is expected to have an impact on vectors and vector-borne diseases. Staff will continue to monitor for vector presence and abundance, will stay abreast of vector-borne disease trends, and take steps to prepare and respond as appropriate.

In 2019, the program will continue perform vector surveillance, community outreach and public education, and mosquito control, primarily through proactive larviciding. We encourage the community to do their part by tipping and tossing standing water to prevent mosquitoes and by preventing mosquito and tick bites. A healthier community begins with you!

West Nile Virus (WNV) Fact Sheet

What Is West Nile Virus?

West Nile virus infection can cause serious disease. WNV is established as a seasonal epidemic in North America that flares up in the summer and continues into the fall. This fact sheet contains important information that can help you recognize and prevent West Nile virus.

What Can I Do to Prevent WNV?

The easiest and best way to avoid WNV is to prevent mosquito bites.

- When outdoors, use repellents containing DEET, picaridin, IR3535, some oil of lemon eucalyptus or para-menthane-diol. Follow the directions on the package.
- Many mosquitoes are most active from dusk to dawn. Be sure to use insect repellent and wear long sleeves and pants at these times or consider staying indoors during these hours.
- Make sure you have good screens on your windows and doors to keep mosquitoes out.
- Get rid of mosquito breeding sites by emptying standing water from flower pots, buckets and barrels. Change the water in pet dishes and replace the water in bird baths weekly. Drill holes in tire swings so water drains out. Keep children's wading pools empty and on their sides when they aren't being used.

What Are the Symptoms of WNV?

- **Serious Symptoms in a Few People.** About 1 in 150 people infected with WNV will develop severe illness. The severe symptoms can include high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, muscle weakness, vision loss, numbness and paralysis. These symptoms may last several weeks, and neurological effects may be permanent.
- **Milder Symptoms in Some People.** Up to 20 percent of the people who become infected will have symptoms which can include fever, headache, body aches, nausea, vomiting, and sometimes swollen lymph glands or a skin rash on the chest, stomach and back. Symptoms can last for as short as a few days to as long as several weeks.
- **No Symptoms in Most People.** Approximately 80 percent of people who are infected with WNV will not show any symptoms at all, but there is no way to know in advance if you will develop an illness or not.

How Does West Nile Virus Spread?

- **Infected Mosquitoes.**
WNV is spread by the bite of an infected mosquito. Mosquitoes become infected when they feed on infected birds. Infected mosquitoes can then spread WNV to humans and other animals when they bite.
- **Transfusions, Transplants, and Mother-to-Child.**
In a very small number of cases, WNV also has been spread directly from an infected person through blood transfusions, organ transplants, breastfeeding and during pregnancy from mother to baby.
- **Not through touching.**
WNV is not spread through casual contact such as touching or kissing a person with the virus.

How Soon Do Infected People Get Sick?

People typically develop symptoms between 3 and 14 days after they are bitten by the infected mosquito.

How Is WNV Infection Treated?

There is no specific treatment for WNV infection. In cases with milder symptoms, people experience symptoms such as fever and aches that pass on their own, although illness may last weeks to months. In more severe cases, people usually need to go to the hospital where they can receive supportive treatment including intravenous fluids, help with breathing, and nursing care.

What Should I Do if I Think I Have WNV?

Milder WNV illness improves on its own, and people do not need to seek medical attention for this infection though they may choose to do so. If you develop symptoms of severe WNV illness, such as unusually severe headaches or confusion, seek medical attention immediately. Severe WNV illness usually requires hospitalization. Pregnant women and nursing mothers are encouraged to talk to their doctor if they develop symptoms that could be WNV.



What Is the Risk of Getting Sick from WNV?

- **People over 50 at higher risk to get severe illness.** People over the age of 50 are more likely to develop serious symptoms of WNV if they do get sick and should take special care to avoid mosquito bites.
- **Being outside means you're at risk.** The more time you're outdoors, the more time you could be bitten by an infected mosquito. Pay attention to avoiding mosquito bites if you spend time outside, either working or playing.
- **Risk through medical procedures is very low.** All donated blood is checked for WNV before being used. The risk of getting WNV through blood transfusions and organ transplants is very small, and should not prevent people who need surgery from having it. If you have concerns, talk to your doctor.

What Is CDC Doing About WNV?

CDC is working with state and local health departments, the Food and Drug Administration and other government agencies, as well as private industry, to prepare for and prevent new cases of WNV.

Some things CDC is doing include:

- Coordinating a nation-wide electronic database where states share information about WNV
- Helping states develop and carry out improved mosquito prevention and control programs
- Developing better, faster tests to detect and diagnose WNV
- Creating new education tools and programs for the media, the public, and health professionals
- Working with partners to develop vaccines.



What Else Should I Know?

West Nile virus infects birds. In nature, West Nile virus cycles between mosquitoes and birds. Some infected birds can develop high levels of the virus in their bloodstream and mosquitoes can become infected by biting these infected birds. Some, but not all infected birds get sick and die of disease. One way health officials conduct surveillance for West Nile virus is by testing local birds. Finding dead birds may be a sign that West Nile virus is circulating between birds and the mosquitoes in an area. By reporting dead birds to state and local health departments, you can play an important role in monitoring West Nile virus. State and local agencies have different policies for collecting and testing birds, so check with your county or [state health department](#) to find information about reporting dead birds in your area.

If you find a dead bird: Don't handle the body with your bare hands. Contact your local health department for instructions on reporting and disposing of the body. They may tell you to dispose of the bird after they log your report.

For more information, visit www.cdc.gov/westnile, or call CDC at 800-CDC-INFO (English and Spanish) or 888-232-6348 (TTY).



NATULAR® G

Mosquito Larvicide Granule

Controls larvae of mosquitoes which may transmit Zika, Dengue, or Chikungunya.

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Active Ingredient:	
Spinosad (a mixture of Spinosyn A and Spinosyn D)	0.5%
Other Ingredients	99.5%
Total	100.0%

Group	5	INSECTICIDE
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KEEP OUT OF REACH OF CHILDREN

Precautionary Statements

Environmental Hazards

This product is toxic to aquatic invertebrates. Non-target aquatic invertebrates may be killed in water where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply when weather conditions favor drift from treated areas. Drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Apply this product only as specified on the label.

Directions For Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Product Information

NATULAR® G is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. NATULAR® G may be applied with suitable ground or aerial application equipment.

Use Precautions

Integrated Pest Management (IPM) Programs

NATULAR® G is intended to kill mosquito and midge larvae. Mosquitoes are best controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

NATULAR® G contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticide groups is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Routinely evaluate applications for loss of effectiveness.

- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 20 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making decisions. Where states have more stringent regulations, they should be observed.

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Apply NATULAR® G prior to flooding as a pre-hatch application to areas that breed mosquitoes, or at any stage of larval development after flooding in listed sites. The following recommendations are provided for ground and aerial application of NATULAR® G.

Ground Application

Use conventional ground application equipment and apply NATULAR® G at the designated rate for the targeted site.

Spot Treatment

Apply NATULAR® G as a spot treatment to areas where mosquitoes are breeding at rates appropriate for the treatment site habitat and conditions.

Aerial Application

Equipment used in the application of NATULAR® G should be carefully calibrated before use and checked frequently during application to be sure it is working properly and delivering a uniform distribution pattern. Avoid overlaps that will increase NATULAR® G dosage above recommended limits.

Application Sites and Rates

The rates listed are typical for efficaciously killing mosquito and midge larvae in the listed habitat sites. Within this range, use lower rates when water is shallow, vegetation and/or pollution are minimal, and mosquito populations are low. Do not use less than labeled minimum rate. NATULAR® G may be applied at rates up to 20 lb per acre in waters high in organic content (such as polluted water, sewage lagoons, animal waste lagoons, and waters with high concentrations of leaf litter or other organic debris), deep-water mosquito habitats or those with dense surface cover, and where monitoring indicates a lack of kill at typical rates. Do not re-apply within 7 days of the initial application unless monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective. Do not apply to water intended for irrigation.

AL0537

For killing mosquito larvae species in the following non-crop sites:

Non-Crop Site	NATULAR® G lb/acre (lb ai/acre)
Temporary Standing Water: Woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks and other natural or man-made depressions, rock holes, pot holes and similar areas subject to holding water Other Freshwater Sites: Natural and manmade aquatic sites, edges of lakes, ponds, canals, stream eddies, creek edges, detention ponds	3.5 - 6.5 (0.018 - 0.033)
Freshwater Swamps and Marshes: Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation Marine/Coastal Areas: Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas	9 (0.045)
Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, and similar areas Wastewater: Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing, and similar areas	6.5 - 9 (0.033 - 0.045)
Dormant Rice Fields: Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle)	3.5 - 6.5 (0.018 - 0.033)
Natural and Artificial Containers: Tree holes, bromeliads, leaf axils, and other similar natural water holding containers, cemetery urns, bird baths, flower pots, rain barrels, buckets, single tires, tires stockpiled in dumps, landfills, recycling plants and other similar areas, abandoned swimming pools, ornamental ponds, flooded roof tops and similar water holding sites. Landfill containers, salvage yards, abandoned vehicles Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.	3.5 - 9 (0.018 - 0.045) For small to medium size containers, apply 1/8 teaspoon (about 0.37 g) of Natular G per 10-20 gallons of water. For very small containers, apply a pinch of Natular G (0.02 g) per ½ - 1 gallon of water. This is approximately 7 - 9 granules per ½ - 1 gallon of water.

Agricultural/Crop Sites Where Mosquito Breeding Occurs:

Apply NATULAR® G at the rate of 3.5 to 9 lb per acre in standing water within agricultural/crop sites where mosquito breeding occurs: pastures/hay fields, rangelands, orchards, vineyards, and citrus groves. Do not apply to waters intended for irrigation.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

Container Handling for Non-Refillable Bag: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Container Handling for Rigid Refillable Tote: Refillable container. Refill this container with granular spinosad pesticide formulation only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment. Use a sprayer with water to quickly and completely rinse the interior of the container. Ensure the top, bottom, and all sides are rinsed. A high pressure sprayer with a rinsing nozzle could provide a thorough rinse of the interior. Drain and collect rinsate from the container into a collection system for later disposal. Drain the container dry so no water remains. Return to point of sale. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by State and local authorities.

Warranty

To the extent consistent with applicable law CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Natular® is a Registered Trademark of Clarke Mosquito Control Products, Inc.

**IN CASE OF MEDICAL EMERGENCY, CALL THE INTERNATIONAL
POISON CONTROL
CENTER 1-800-214-7753**

Manufactured By:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 North Garden Avenue
Roselle, IL 60172, U.S.A.
1-800-323-5727

EPA Reg. No.: 8329-80 NET WEIGHT: _____

EPA Est. No.: LOT: _____



NATULAR® G30

Mosquito Larvicide / Extended Release Granule

To be used in governmental mosquito control programs, by professional pest control operators, or in other mosquito or midge control operations.

Controls larvae of mosquitoes which may transmit Dengue, Chikungunya, or Zika.

Active Ingredient (dry weight basis):

Spinosad (a mixture of Spinosyn A and Spinosyn D)	2.5%
Other Ingredients	97.5%
Total	100.00%

U.S. Patent No. 5,362,634 and 5,496,931

Natular® G30 is a 2.5% extended release granule.

Group

5

INSECTICIDE

KEEP OUT OF REACH OF CHILDREN

CAUTION

Precautionary Statements

Hazards to Humans and Domestic Animals

Harmful if swallowed. Causes moderate eye irritation. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Avoid contact with eyes or clothing. Wear protective eyewear (such as goggles, face shield, or safety glasses).

First Aid

If swallowed:

- Call a poison control center or doctor immediately for treatment advice.
- Have a person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything to an unconscious person.

If in eyes:

- Hold eye open and rinse slowly and gently with warm water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

Environmental Hazards

This product is toxic to aquatic organisms. Non-target aquatic invertebrates may be killed in waters where this pesticide is used. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

Directions For Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying.

Product Information

Natular® G30 is a product for killing mosquito and midge larvae. This product's active ingredient, spinosad, is biologically derived from the fermentation of *Saccharopolyspora spinosa*, a naturally occurring soil organism. Natular® G30 releases effective levels of spinosad for up to 30 days under typical environmental conditions. Natular® G30 may be applied with ground or aerial equipment.

Use Precautions

Integrated Pest Management (IPM) Programs

Natular® G30 is intended to kill mosquito and midge larvae. Mosquitoes are best

controlled when an IPM program is followed. Larval control efforts should be managed through habitat mapping, active adult and larval surveillance, and integrated with other control strategies such as source reduction, public education programs, harborage or barrier adult mosquito control applications, and targeted adulticide applications.

Insecticide Resistance Management (IRM)

Natular® G30 contains a Group 5 insecticide. Insect biotypes with acquired resistance to Group 5 insecticides may eventually dominate the insect population if appropriate resistance management strategies are not followed. Currently, only spinetoram and spinosad active ingredients are classified as Group 5 insecticides. Resistance to other insecticides is not likely to impact the effectiveness of this product. Spinosad may be used in rotation with all other labeled products in a comprehensive IRM program.

To minimize the potential for resistance development, the following practices are recommended:

- Base insecticide use on comprehensive IPM and IRM programs.
- Routinely evaluate applications for loss of effectiveness.
- Rotate with other labeled effective mosquito larvicides that have a different mode of action.
- In dormant rice fields, standing water within agricultural/crop sites, and permanent marine and freshwater sites, do not make more than 5 applications per year.
- Use insecticides with a different mode of action (different insecticide group) on adult mosquitoes so that both larvae and adults are not exposed to products with the same mode of action.
- Contact your local extension specialist, technical advisor, and/or Clarke representative for insecticide resistance management and/or IPM recommendations for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact your local Clarke representative by calling 800-323-5727.

Application

Proper application techniques help ensure adequate coverage and correct dosage necessary to obtain optimum kill of mosquito and midge larvae. Apply Natular® G30 prior to flooding as a pre-hatch application to areas that breed mosquitoes, or at any stage of larval development after flooding in listed sites. Do not allow this product to drift onto neighboring crops or non-crops areas or use in a manner or at a time other than in accordance with label directions.

Ground Application

Use conventional ground application equipment that provides even coverage at labeled rates.

Aerial Application

Fixed wing aircraft or helicopters equipped with granular spreaders capable of applying rates from 5 to 20 lb per acre may be used to apply Natular® G30. Aerial application equipment should be carefully calibrated before use to be sure it is working properly and delivering a uniform distribution pattern. Avoid flight path overlaps while dispensing granules. Do not exceed labeled limits.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making application decisions.

Application Sites and Rates

Apply Natular® G30 at rates (see table) for the targeted treatment site. Within these rate ranges apply at a rate appropriate to site habitat and conditions at the time of application. Use lower labeled rate when water is shallow, vegetation and/or pollution are minimal, and mosquito populations are low. Do not use less than labeled minimum rate. Within the labeled rate range, use higher rates when water is deep, vegetation and/or pollution are high, and mosquito populations are high in number.

Natular® G30 may be applied at rates up to 20 lb per acre in waters high in organic content, deep-water mosquito habitats or those with dense surface cover, and where monitoring indicates a lack of kill at typical rates.

Reapply after 30 days, if needed for extended control in continuously flooded habitat. More frequent applications may be made if monitoring indicates that larval populations have reestablished or weather conditions have rendered initial treatments ineffective.

Treatment Area	Natular® G30
<p>Temporary Standing Water: Woodland pools, snow pools, roadside ditches, retention ponds, freshwater dredge spoils, tire tracks and other natural or manmade depressions, rock holes, pot holes and similar areas subject to holding water.</p> <p>Other Freshwater Sites: Natural and manmade aquatic sites; edges of lakes, ponds, canals, stream eddies, creek edges, and detention ponds.</p> <p>Dormant Rice Fields: Impounded water in dormant rice fields (for application only during the interval between harvest and preparation of the field for the next cropping cycle).</p> <p>Freshwater Swamps and Marshes: Mixed hardwood swamps, cattail marsh, common reed wetland, water hyacinth ponds, and similar freshwater areas with emergent vegetation.</p> <p>Marine/Coastal Areas: Intertidal areas above the mean high water mark, mangroves, brackish water swamps and marshes, coastal impoundments and similar areas.</p>	<p>Apply 5 to 12 lbs per acre (5.6 to 13.5 kg per hectare).</p> <p>Rate is equivalent to 5 to 12 g per 100 sq. ft. of water.</p>
<p>Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, and similar areas.</p> <p>Wastewater: Sewage effluent, sewers, sewage lagoons, cesspools, oxidation ponds, septic ditches and tanks, animal waste lagoons and settling ponds, livestock runoff lagoons, wastewater impoundments associated with fruit and vegetable processing, and similar areas.</p> <p>Natural and Artificial Containers: Tree holes, bromeliads, leaf axils, and other similar natural water holding containers; cemetery urns, bird baths, flower pots, rain barrels, buckets, single tires, tires stockpiled in dumps, landfills, recycling plants and other similar areas, abandoned swimming pools, ornamental ponds, flooded roof tops and similar water holding sites; landfill containers, salvage yards, abandoned vehicles.</p> <p>Do not apply to natural or artificial containers of water intended for consumption by people, animals, or livestock.</p>	<p>Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare).</p> <p>Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.</p> <p>For small to medium size containers, apply 0.15 g of Natular G30 per 10-25 gallons of water.</p> <p>For very small containers, apply a pinch of Natular G30 (about 0.02 g) per 5 liters (1.3 gallons) of water. This is approximately 8-10 granules per 5 liters of water.</p>
<p><u>Agricultural/Crop Sites Where Mosquito Breeding Occurs</u></p> <p>Apply Natular® G30 to standing water within agricultural/crop sites where mosquito breeding occurs to kill mosquito larvae species, including: pastures/hay fields, rangeland, orchards, vineyards, and citrus groves. Do not apply to waters intended for irrigation.</p>	<p>Apply 5 to 20 lbs per acre (5.6 to 22.4 kg per hectare).</p> <p>Rate is equivalent to 5 to 20 g per 100 sq. ft. of water.</p>

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a cool dry place in original container only. Keep away from moisture.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling for Non-Refillable Bag: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Container Handling for Rigid Refillable Tote: Refillable container. Refill this container with granular spinosad pesticide formulation only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment. Use a sprayer with water to quickly and completely rinse the interior of the container. Ensure the top, bottom, and all sides are rinsed. A high pressure sprayer with a rinsing nozzle could provide a thorough rinse of the interior. Drain and collect rinsate from the container into a collection system for later disposal. Drain the container dry so no water remains. Return to point of sale. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by State and local authorities.

Warranty: To the extent consistent with applicable law, CLARKE MOSQUITO CONTROL PRODUCTS, INC. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.

Manufactured For:

CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 North Garden Avenue
Roselle, IL 60172, U.S.A.
1-800-323-5727

EPA Reg. No.: 8329-83

EPA Est. No.:

Net Contents: _____

Lot: _____

Natular® is a Trademark of Clarke Mosquito Control Products, Inc.

VectoBac® G

BIOLOGICAL LARVICIDE

GRANULE

ACTIVE INGREDIENT:

Bacillus thuringiensis, subspecies *israelensis*, strain AM 65-52, fermentation solids, spores, and insecticidal toxins 2.80%
 OTHER INGREDIENTS 97.20%
 TOTAL 100.00%

Potency: 200 International Toxic Units (ITU) per mg
 (Equivalent to 0.091 billion potency: ITU per pound)

The percent active ingredient does not indicate product performance and potency measurements are not Federally standardized.

EPA Reg. No. 73049-10
 EPA Est. No. 33762-IA-001

List No. 05108

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- 2.0 Precautionary Statements
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- 5.0 Storage and Disposal
- 6.0 Notice to User

KEEP OUT OF REACH OF CHILDREN CAUTION

1.0

FIRST AID	
If in Eyes	<ul style="list-style-type: none"> Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.	

2.0 PRECAUTIONARY STATEMENTS

2.1 HAZARD TO HUMANS (AND DOMESTIC ANIMALS)

CAUTION

Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling.

Mixers/loaders and applicators not in enclosed cabs or aircraft must wear a dust/mist respirator meeting NIOSH standards of at least N-95, R-95 or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2 ENVIRONMENTAL HAZARDS

Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

4.0 APPLICATION DIRECTIONS

VectoBac G is an insecticide for use against mosquito larvae.

Mosquitoes Habitat

Suggested Range Rate*

(Such as the following examples):

Irrigation ditches, roadside ditches, flood water, standing ponds, livestock watering ponds and troughs, woodland pools, snow melt pools, pastures, catch basins, storm water retention areas, tidal water, salt marshes and rice fields

2.5 - 10 lbs. / acre

In addition, standing water containing mosquito larvae, in fields growing crops such as alfalfa, almonds, asparagus, corn, cotton, dates, grapes, peaches, sugar cane and walnuts may be treated at the recommended rates.

* Use 10-20 lbs. / acre when late 3rd and early 4th instar larvae predominate, mosquito populations are high, water is heavily polluted (sewage lagoons, animal waste lagoons), and/or algae are abundant.

Apply uniformly by aerial or ground conventional equipment. Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all of these factors when making decisions.

A 7 to 14 day interval between applications should be employed.

5.0 STORAGE AND DISPOSAL

Do not contaminate potable water, food or feed by storage or disposal.

Storage: Store in a cool [59-86°F (15-30°C)], dry place.

Pesticide Disposal: Completely empty bag into application equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact Ag Container Recycling Council at 202-861-3144 or www.acrecycle.org. If recycling is not available dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

6.0 NOTICE TO USER

Seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

VectoBac is a registered trademark of
Valent BioSciences Corporation.

**ACTIVE INGREDIENT:**

Bacillus sphaericus 2362, Serotype H5a5b, strain ABTS
 1743 Technical Powder (670 BsITU/mg) 7.5%
 OTHER INGREDIENTS 92.5%
 TOTAL 100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.

Expiration Date: (Two years from the date of manufacture).

The percent active ingredient does not indicate product performance and potency measurements are not federally standardized.

EPA Reg. No. 73049-20 List No. 05722
 EPA Est. No. 33762-IA-001 (Lot No. Suffix 'N8')
 EPA Est. No. 33967-NJ-1 (Lot No. Suffix 'Q5')

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 - 5.1 Application Directions
- 6.0 Notice to User

KEEP OUT OF REACH OF CHILDREN
CAUTION

1.0**FIRST AID**

If in eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0**PRECAUTIONARY STATEMENTS****2.1****HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION**

Harmful if absorbed through the skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

2.2**ENVIRONMENTAL HAZARDS**

Do not contaminate water when disposing of equipment washwaters or rinsate. Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

4.0**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water when disposing of equipment washwaters.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Non refillable container. Do not reuse or refill this container. Offer for recycling if available. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. For Water Soluble Pouches, dispose of empty outer foil bag in trash.

Continued

5.0 DIRECTIONS FOR USE - VECTOLEX WATER SOLUBLE POUCHES (WSP)

Once the foil bag containing Water Soluble Pouches is opened, use pouches within one day.

5.1 APPLICATION DIRECTIONS

MOSQUITO CONTROL

VectoLex WSP is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoLex WSP can be applied to areas that contain fish, other aquatic life, and plants. VectoLex WSP can be applied to areas used by or in contact with humans, pets, horses, livestock, birds or wildlife.

I. For control of mosquito larva species* in the following non-crops sites:

Habitat	Rate Range	
Drainage/Drainage Systems:		
Storm drains, catch basins, retention, detention and seepage ponds.	1 pouch/50 sq.ft. ⁽¹⁾	
Treatment Areas (For Use In)⁽¹⁾:		
Ponds	Standing water	Unused swimming
Lagoons	Storm water	pools or spas
Water gardens	retention areas	Flooded basements
Hollow trees and tree holes	Catch basins	Pool covers
Urns	Birdbaths	Gutters and drains
Rain barrels	Fountains	Wheelbarrows
Livestock watering troughs/ponds/tanks	Flowerpots and planters	Garbage cans and covers
Irrigation ditches	Snowmelt pools	Discarded tires
Roadside ditches	Abandoned swimming pools	
Flood water		

Any location where water accumulates and remains standing for periods of time, except treated, finished drinking water for human consumption.

⁽¹⁾Treat on basis of surface area of potential mosquito breeding sites by placing one (1) VectoLex Soluble Pouch for up to 50 square feet of treatment area. Re-apply as needed after 1 to 4 weeks.

5.1 APPLICATION DIRECTIONS (cont'd)

Longer periods of mosquito population suppression may result where sufficient numbers of non-target aquatic invertebrate parasites and predators are present since these are not affected by the product and contribute to mosquito population reduction.

* Mosquito species effectively controlled by VectoLex WSP, including many of those known to carry/transmit West Nile Virus:

Culex spp.
Aedes vexans
Ochlerotatus melanimon (*Aedes melanimon*)
Ochlerotatus stimulans (*Aedes stimulans*)
Ochlerotatus nigromaculis (*Aedes nigromaculis*)
Psorophora columbiae
Psorophora ferox
Ochlerotatus triseriatus (*Aedes triseriatus*)
Ochlerotatus sollicitans (*Aedes sollicitans*)
Anopheles quadrimaculatus
Coquillettidia perturbans

6.0 NOTICE TO USER

To the fullest extent permitted by law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

**ACTIVE INGREDIENT:**

Bacillus sphaericus 2362, Serotype H5a5b, strain ABTS
1743 fermentation solids, spores, and insecticidal toxins . . . 7.5%
OTHER INGREDIENTS 92.5%
TOTAL 100.0%

Potency: This product contains 50 BsITU/mg or 0.023 Billion BsITU/lb.
Expiration Date: (Two years from the date of manufacture).

The percent active ingredient does not indicate product performance
and potency measurements are not federally standardized.

EPA Reg. No. 73049-20
EPA Est. No. 33762-IA-001

List No. 05722

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 - 5.1 Application Directions
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KEEP OUT OF REACH OF CHILDREN CAUTION

1.0

FIRST AID

If in eyes	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0 PRECAUTIONARY STATEMENTS**2.1 HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Avoid contact with skin, eyes or clothing. Wear protective eyewear. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft, must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitizations.

2.2 Environmental Hazards

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0 DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision. IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

4.0 STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Do not contaminate water when disposing of equipment washwaters.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

5.0 DIRECTIONS FOR USE - VECTOLEX FG**5.1 Application Directions****MOSQUITO CONTROL**

VectoLex[®] FG Biological Larvicide Fine Granule (hereafter referred to as VectoLex FG) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoLex FG can be applied to areas that contain fish, other aquatic life, and plants. VectoLex FG can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

CONTINUED

I. For control of mosquito larvae species* in the following non-crop sites:

Habitat	Rate Range
Wastewater: Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, impounded wastewater associated with fruit and vegetable processing.	5-20 lbs/acre**
Stormwater/Drainage Systems: Storm sewers, catch basins, drainage ditches, retention ponds, detention ponds and seepage ponds.	5-20 lbs/acre**
Marine/Coastal Areas: Salt marshes, mangroves, estuaries.	5-20 lbs/acre**
Water Bodies: Natural and manmade aquatic sites such as lakes, ponds, rivers, canals, streams and livestock watering ponds and troughs.	5-20 lbs/acre**
Dormant Rice Fields: Impounded water in dormant rice fields. (For application only during the interval between harvest and preparation of the field for the next cropping cycle.)	5-20 lbs/acre**
Waste Tires: Tires stockpiled in dumps, landfills, recycling plants, and other similar sites.	0.5-2 lbs/ 1000 sq. ft.

II. For the control of mosquito larvae species* in the following agricultural/crop sites where mosquito breeding occurs:

Habitats:	Rate Range
Rice, pastures/hay fields, orchards, citrus groves, irrigated crops.	5-20 lbs/acre**
Apply VectoLex FG uniformly by aerial or conventional ground equipment. Reapply VectoLex FG as needed after 1 to 4 weeks.	

* Mosquito species effectively controlled by VectoLex FG, including many of those known to carry/transmit West Nile virus:

Culex spp.
Aedes vexans
Ochlerotatus melanion (*Aedes melanion*)
Ochlerotatus stimulans (*Aedes stimulans*)
Ochlerotatus nigromaculis (*Aedes nigromaculis*)
Psorophora columbiae
Psorophora ferox
Ochlerotatus triseriatus (*Aedes triseriatus*)
Ochlerotatus sollicitans (*Aedes sollicitans*)
Anopheles quadrimaculatus
Coquillettidia perturbans

**Use higher rates (10 to 20 lbs/acre) in areas where extended residual control is necessary, or in habitats having deep water or dense surface cover.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

6.0 NOTICE TO USER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage or handling not in accordance with accompanying directions.

**ACTIVE INGREDIENTS:**

Bacillus sphaericus 2362, Serotype H5a5b, Strain ABTS 1743
 Fermentation Solids, Spores, and Insecticidal Toxins 2.7%
Bacillus thuringiensis subsp. *israelensis* Serotype H-14,
 Strain AM65-52 Fermentation Solids, Spores, and
 Insecticidal Toxins 4.5%
 OTHER INGREDIENTS 92.8%
 TOTAL 100.0%

Potency: This product contains 50 BslTU/mg or 0.023 Billion BslTU/lb.
 Expiration Date: (Two years from date of manufacture)

The percent active ingredient does not indicate product performance
 and potency measurements are not Federally standardized.

EPA Reg. No. 73049-429

EPA Est. No. 33762-IA-001

List No. 05750

US Patent No. 7,989,180, US Patent No. 8,454,983

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**KEEP OUT OF REACH OF CHILDREN
CAUTION**

1.0**FIRST AID**

If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-315-9819 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-800-323-9597.

2.0**PRECAUTIONARY STATEMENTS****2.1****Hazards To Humans and Domestic Animals
CAUTION**

Causes moderate eye irritation. Harmful if absorbed through the skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin, eyes, or clothing. Avoid breathing dust. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Mixers/loaders and applicators not in enclosed cabs or aircraft, must wear a dust/mist filtering respirator meeting NIOSH standards of at least N-95, R-95, or P-95. Repeated exposure to high concentrations of microbial proteins can cause allergic sensitization.

2.2**Environmental Hazards**

Do not apply directly to treated, finished drinking water reservoirs or drinking water receptacles when the water is intended for human consumption.

3.0**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform mosquito control applications, or by persons under their direct supervision.

IN CALIFORNIA: This product is to be applied by County Health Department, State Department of Health Services, Mosquito and Vector Control or Mosquito Abatement District personnel, or persons under contract to these entities only.

CONTINUED

4.0

APPLICATION DIRECTIONS**MOSQUITO CONTROL**

VectoMax® FG Biological Larvicide Fine Granule (hereafter referred to as VectoMax FG) is a selective microbial insecticide for use against mosquito larvae in a variety of habitats. VectoMax FG can be applied to areas that contain fish, other aquatic life, and plants. VectoMax FG can be applied to areas used by or in contact with humans, pets, horses, livestock, birds, or wildlife.

I. For control of mosquito larvae in the following non-crop sites:

Habitat	Application Rate Range
Wastewater: Sewage effluent, sewage lagoons, oxidation ponds, septic ditches, animal waste lagoons, and impound wastewater associated with fruit and vegetable processing.	5-20 lbs/acre*
Storm Water/Drainage Systems: Drainage ditches, roadside ditches, retention ponds, detention ponds, and seepage ponds.	5-20 lbs/acre*
Marine/Coastal Areas: Tidal water, saltmarshes, mangroves, and estuaries.	5-20 lbs/acre*
Water Bodies: Natural and manmade aquatic sites such as lakes, ponds, canals, rivers and streams (including river & stream edges), floodplains, swamps, marshes, irrigation ditches, flood water, woodland pools, snow melt pools and livestock watering ponds and troughs.	5-20 lbs/acre*
Waste Tires: Tires stockpiled in dumps, landfills, recycling plants, and other similar sites.	0.5-2 lbs/ 1000 sq. ft.

II. For control of mosquito larvae in agricultural/crop sites where mosquito breeding occurs.

Habitat	Application Rate Range
Rice fields, pastures/hay fields, orchards (including citrus groves, peaches, almonds, dates, and walnuts), asparagus fields, corn fields, cotton fields, alfalfa fields, and vineyards.	5-20 lbs/acre*

Apply VectoMax FG uniformly by aerial or conventional ground equipment. Reapply VectoMax FG as needed (after 1-4 weeks under typical environmental conditions).

*Use higher application rates (10-20 lbs/acre) in areas where 4th instar *Aedes* or *Ochlerotatus* spp. larvae predominate, or in areas where very high densities of late instar mosquito larvae are present, or under conditions where local experience indicates the need for higher application rates to achieve extended residual control.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the treatment coordinator are responsible for considering all these factors when making decisions.

5.0

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place.

Pesticide Disposal: To avoid wastes, use all material in this container by application according to label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

Container Handling: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by State and local ordinances. If burned, stay out of smoke.

6.0

WARRANTY AND DISCLAIMER

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning the use of this product other than as indicated on this label. To the extent consistent with applicable law, user assumes all risks of use, storage, or handling not in accordance with the accompanying directions.

VectoMax is a registered trademark and BioFuse is a trademark of Valent BioSciences Corporation.



COCOBEAR™

Mosquito Larvicide Oil

Kills larvae and pupa stages of mosquitoes. Physical control of mosquito broods: kills by suffocation - mosquitoes do not develop resistance. Prevents mosquito emergence.

Standing water treatment. Use on: ponds, pools, ditches, standing water within irrigated croplands and pastures, flood waters, and other listed areas where mosquitoes develop.

ACTIVE INGREDIENT

Mineral Oil*	10.0%
OTHER INGREDIENTS	90.0%
TOTAL	100.0%

* Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.

IF SWALLOWED:

Call a poison control center or doctor immediately for treatment advice. DO NOT induce vomiting unless told to do so by a poison control center or doctor. Do not give ANY liquid to the person. Do not give anything by mouth to an unconscious person.

NOTICE TO PHYSICIANS: This product contains petroleum distillate and may pose an aspiration pneumonia hazard.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE): Mixers, loaders, applicators, and other handlers must wear long-sleeved shirt and long pants, and shoes plus socks.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

User Safety Recommendations: Users should wash hands before eating, drinking, chewing gum, tobacco, or using the toilet. Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Users should remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

Do not apply directly to water, except as directed for use on this label. Aquatic organisms may be killed in waters where this pesticide is used. Consult with the State or tribal agency with primary authority for regulating pesticides before applying this product to public waters to determine if a permit is needed.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

This product may cause injury to plants in the treatment area. Stressed plants may be more susceptible.

COCOBEAR may only be used to control mosquito larvae and pupae. COCOBEAR leaves a thin film on the surface of treated, non-flowing water and kills mosquito larvae and pupae by suffocation. COCOBEAR kills immature mosquitoes where they develop.

This product may be used for surface applications to standing water within irrigated croplands and pastures, drainage areas, ditches, stagnant pools, swamps, marshes, temporary rain pools, sloughs, log ponds, open sewage basins, settling ponds, catch basins, waste tires and intermittently flooded areas.

Apply at uniform rates of 3 gallons per surface acre (for smaller areas, treat at 10 ounces per 1,000 sq. ft. or 1 1/2 quart per 5,000 sq. ft.). Where there is extremely dense vegetation or if the water to be treated is high in organic content, up to 5 gallons per acre (15 ounces per 1,000 sq. ft. or 2 quarts per 5,000 sq. ft.) may be used.

When applying by aerial application, adjust spray volume up to 5 gallons per acre dependent on vegetation and surface conditions. 3 gallons per acre (36 gallons per 100 ft swath mile) is likely to be sufficient for most conditions.

Spray Drift Management

A variety of factors including weather conditions (e.g. wind direction, wind speed, temperature, and relative humidity) and method of application (e.g. ground, aerial) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Wind Speed: Do not apply this product at wind speeds greater than 15 mph at the application site.

Droplet Size: Apply as a medium or coarser spray (ASABE Standard

572), and the minimum mean volume diameter (VMD) for spinning atomizer nozzles.

Temperature Inversions: Application is allowed under stable and/or temperature inversion conditions as long as application is done below the point in the atmosphere where the inversion begins and the droplet size meets the dimensions of very coarse or extremely coarse as defined in ASABE Standard 572 (VMD of 400-500 microns).

Release Height for Ground Applications: Apply using a nozzle height of no more than 4 feet above the surface.

Aerial Applications: Applications must conform to the requirements indicated above regarding wind speed, droplet size, and

temperature inversions and to the additional requirements listed below.

Release Height: Aircraft altitude should be maintained at the lowest altitude necessary for aircraft safety in order to reduce the exposure of droplets to evaporation and wind.

Boom Length: The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. Nozzle placement may be extended to 100% of rotor blade diameter when very coarse droplets of VMD 400-500 microns (ASABE Standard 572) are used. Orient nozzles to spray backward and parallel to the air stream.

Swath Adjustment: When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the upwind and downwind edges of the application area by adjusting the path of the aircraft upwind.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal.

PESTICIDE STORAGE: Store upright at room temperature. In case of spill or leakage, soak up with absorbent material such as sand, sawdust, earth, fuller's earth, etc.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

(REFILLABLE DRUMS & TOTES): Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning the container before refilling is the responsibility of the refiller. To clean the container before disposal, drain the container until it is empty. Add a minimum amount of clean water to allow recirculation through the pump, meter and hoses. A commercial tank-cleaning detergent may be used, if desired. Thoroughly drench the interior sides, ceiling, and floor of the container. Using a steam-cleaning process or a high-pressure/low-water process, clean sides, ceiling, and floor of container. Recirculate wash water through the pump, meter and hoses. Drain the tank. Dispose of wash water or rinsate with pesticide waste. Offer cleaned container for recycling, if available, or puncture and dispose of it in a sanitary landfill, or by other procedures approved by State and local authorities.

(2.5 GALLON JUGS): Nonrefillable container. Do not reuse or refill this container. When container is empty, drain it completely, then puncture and dispose of it in a sanitary landfill or by other procedures approved by State and local authorities.

MANUFACTURED FOR:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172
For more information call: 1-800-323-5727

EPA REG. NO. 8329-93

Available Packaging: 2.5 GAL, 30 GAL, 55 GAL, 275 GAL, BULK

EPA EST. NO. _____

LOT NO: Marked on Container Label

COCOBEAR™ is a trademark of Clarke Mosquito Control Products, Inc.

NOTICE: To the extent consistent with applicable law, Clarke Mosquito Control Products, Inc. makes no warranty, express or implied, concerning the use of this product other than as indicated on the label. To the extent consistent with applicable law, buyer assumes all risk of use/handling of this material when use and/or handling is contrary to label instructions.



FLIT® 10EC

Broad Spectrum Multi-Use Insecticide

Quick Knockdown. For Use Outdoors and in Non-Food/Feed Areas of Commercial Buildings, Warehouses, and Food/Feed Processing Establishments. For Use on Livestock: Cattle (Beef and Dairy), Goats, Sheep, Swine, Horses, and Poultry.

Active Ingredient:	
Permethrin.....	10.00%
†Other Ingredients:	90.00%
	100.00%

†Contains petroleum distillate

KEEP OUT OF REACH OF CHILDREN

WARNING

FIRST AID	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-214-7753 for emergency medical treatment information.	
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
IF IN EYES	<ul style="list-style-type: none"> Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye. Call a poison control center or doctor for treatment advice.
IF INHALED	<ul style="list-style-type: none"> Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
IF SWALLOWED	<ul style="list-style-type: none"> Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
Note to Physician: Contains petroleum distillate – vomiting may cause aspiration pneumonia. Do not administer or instill milk, cream or other substances containing vegetable or animal fats which enhance absorption of lipophilic substances.	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

WARNING. Causes skin irritation. Do not get on skin, or on clothing. Harmful if inhaled. Avoid breathing vapor or spray mist. Causes moderate eye irritation. Avoid contact with eyes. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wear Coveralls worn over long sleeved shirt and long pants, socks, chemical resistant footwear, and chemical resistant gloves (barrier laminate, nitrile rubber, neoprene, rubber, Viton, selection category F*).

Personal Protective Equipment (PPE): Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber greater or equal to 14 mils, and nitrile rubber greater or equal to 14 mils. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

Applicators using ULV cold foggers or fog/mist generators in indoor spaces must wear:

- Coveralls over long-sleeved shirt and long pants,
- Chemical resistant gloves,
- Chemical-resistant footwear plus socks, and
- Chemical resistant headgear, if overhead exposure.

Applicators using ULV cold foggers and/or fog/mist generators in outdoor spaces must wear:

- Long-sleeve shirt and long pants,
- Shoes plus socks, and
- Chemical-resistant gloves

All other mixers, loaders, applicators, and other handlers must wear:

- Long-sleeve shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves for all handlers except for applicators using motorized ground equipment, pilots, and flaggers.
- Chemical resistant apron for mixers/loaders, persons cleaning equipment, and persons exposed to the concentrate and for handlers performing animal dip.

See engineering controls for additional requirements.

User Safety Requirements: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Entry Restrictions:

For space spray use:

Do not enter or allow others to enter until vapors, mists, and aerosols have dispersed, and the treated area has been thoroughly ventilated.

For surface spray use:

Except when applying to livestock, do not enter or allow others to enter treated area until sprays have dried.

ENVIRONMENTAL HAZARDS FOR TERRESTRIAL APPLICATIONS

This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash waters. This pesticide is

highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging the treatment area.

ENVIRONMENTAL HAZARDS FOR WIDE AREA MOSQUITO ADULTICIDE APPLICATIONS

This pesticide is extremely toxic to aquatic organisms, including fish and invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

When applying as a wide area mosquito adulticide, do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body.

PHYSICAL & CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not use this product in or on electrical equipment due to the possibility of shock hazard.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

APPLICATION RESTRICTIONS

- Do not breathe vapors or spray mist.
- Do not use in aircraft cabins.
- Use in a handheld cold or thermal fogger is prohibited.
- Except when applying to livestock or as a wide area mosquito adulticide, do not apply this product in a way that will contact workers or other persons, either directly or through drift.
- Except when applying to livestock or as a wide area mosquito adulticide, only protected handlers may be in the area during application.
- Do not apply when food is present.

WIDE AREA MOSQUITO CONTROL

For use by federal, state, tribal, or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

APPLICATION INSTRUCTIONS

Do not exceed 25 applications at 0.007 lbs. of permethrin per acre or 0.18 lbs. of permethrin per acre in any given season. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne diseases in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort. Apply when wind speed is greater than 1 mph.

GENERAL

FLIT® 10EC Broad Spectrum Multi-Use Insecticide is designed for application as an Ultra-Low Volume (ULV) aerosol to control adult mosquitoes and flies in residential, industrial, urban, recreational and other areas where adult mosquitoes and flies are found. FLIT® 10EC is also recommended for application with mist-blowers, backpack sprayers, handheld sprayers, and low pressure hand sprayers for barrier or surface applications. FLIT® 10EC is used for control of annoyance flies and mosquitoes, mosquitoes and flies of public health or disease vector importance in areas such as but not limited to residential areas, industrial areas, urban areas, parks, campsites, woodlands, athletic fields, golf courses, playgrounds, recreational and overgrown waste areas, roadsides, and other areas where adult mosquitoes

and flies occur. Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period.

In the treatment of corrals, feed lots, swine lots, poultry ranges and zoos cover any exposed drinking water, drinking fountains and animal feed before application.

FLIT® 10EC provides effective control of adult mosquitoes, black flies, gnats, biting and non-biting midges, stable flies, horse flies, deer flies, sheep flies, horn flies, and nuisance flying insects such as houseflies.

SPRAY DROPLET SIZE DETERMINATION

Ground Equipment: Spray equipment must be adjusted so that the volume median diameter is less than 30 microns ($Dv\ 0.5 < 30\ \mu m$) and that 90% of the spray is contained in droplets smaller than 50 microns ($Dv\ 0.9 < 50\ \mu m$). Directions from the equipment manufacturer or vendor, pesticide registrant or a test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that pressure at the nozzle and nozzle flow rate(s) are properly calibrated.

GROUND APPLICATION

Vehicle-Mounted ULV Cold Aerosol Generators or Vehicle-Mounted Non-Thermal Aerosol (Cold Fog): Dilute 1 part concentrate with 1 part water or suitable oil solvent or at proportional oil dilutions calculated on the basis of vehicle speed and swath width to achieve the target dose. Apply through non-thermal ULV application equipment and base acreage calculations on the equipment manufacturer's recommended swath width. Apply at a rate not to exceed 0.007 pounds of permethrin per acre in any given 24 hour period. An optimum swath is created when FLIT® 10EC is applied from a truck that is being driven perpendicular to the wind direction. Direct the spray head of equipment to ensure even distribution of the spray cloud throughout the area. For best results, apply when insects are most active and meteorological conditions are conducive to keeping the spray cloud in the air column close to the ground. An inversion of air temperatures and a light breeze is preferable. Do not exceed 25 applications at 0.007 pounds of permethrin per acre (not to exceed a total of 0.18 pounds of permethrin per acre) in any given season. More frequent applications may be made to prevent or control a threat to public and/or animal health determined by a state, tribal or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort. Application during the cooler hours of the night or early morning is recommended.

FLIT® 10EC may be applied through ULV Cold Aerosol Generators, or other equipment designed for non-thermal ULV aerosol applications. The desired application rate may be obtained under different conditions by altering the dilution rate of FLIT® 10EC, the flow rate of the insecticide from the application equipment and the vehicle speed. Where dense vegetation is present, the use of higher rates and/or slower speeds is recommended.

BARRIER APPLICATIONS

For control and exclusion of resting or flying adult mosquitoes in areas such as animal quarters, roadsides, urban areas, residential areas, industrial areas, golf courses, parks, recreational areas, tire piles and all public areas where adult mosquitoes may occur. May be used to treat aggregation and harborage areas such as the perimeter of residential buildings, storage buildings, empty rail cars, truck transport trailers, abandoned buildings and other areas where adult mosquitoes find harborage. For application to resting or aggregation surfaces using low pressure hand sprayers or other similar equipment which has demonstrated the capacity to deliver an even distribution of the labeled rate over the desired treatment area, mix 1 part concentrate with 1 part of water or suitable oil diluents and apply sufficient spray to dampen surface. For application using backpack or truck-mounted mist blower equipment, apply at a rate not to exceed 36.6 fl. oz. of diluted product per acre or diluted at a rate not to exceed 0.1 lbs. a.i. per acre.

Direct spray onto foliage at the perimeter of areas from which mosquitoes or flies are to be excluded or direct spray into harborage areas or resting areas where adult mosquitoes or flies may be found. When this product is applied as a barrier application using low pressure hand sprayers, hydraulic sprayers, or ground ULV equipment, do not apply within 100 feet (30 meters) of lakes and streams.

Not for use in outdoor residential misting systems.

To prepare dilutions, the concentrate should first be stirred or agitated well. Add the required amount of concentrate to water or oil and blend thoroughly. Do not hold dilutions for more than 24 hours.

For maximum effectiveness, a combination of localized application and space treatment is recommended. Remove pets, birds, and cover fish aquaria before spraying.

USE RESTRICTIONS FOR WIDE AREA MOSQUITO USE

Do not allow spray treatment to contaminate cropland, poultry ranges or water supplies. Do not use on crops used for food or forage.

USE RESTRICTIONS FOR INDOOR USE

Except when making wide area mosquito adulticide applications or treating livestock, do not apply this product in a way that will contact workers or other persons, either directly or through drift.

Except when making wide area mosquito adulticide applications or treating livestock, only protected handlers may be in the area during application.

Do not breathe dusts, vapors, or spray mist.

For applications to food/feed handling and service areas:

Do not apply when food is present.

Do not use in food areas of food handling establishments, restaurants, or other areas where food is commercially prepared or processed.

Do not use in serving areas while food is exposed or facility is in operation. Serving areas are areas where prepared foods are served, such as dining rooms, but excluding areas where foods may be prepared or held. All food processing surfaces and utensils should be covered during treatment or thoroughly washed before use. Exposed food should be covered or removed.

Do not apply indoors at residential sites, including nurseries, day care centers, schools, hospitals, and nursing homes.

Not for broadcast use.

Application is prohibited directly into sewers or drains, or to any area like a gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur. Do not allow the product to enter any drain during or after application.

USE RESTRICTIONS FOR OUTDOOR AND ANIMAL QUARTER USE

When used in dairy barns or facilities: Close milk bulk tank lids to prevent contamination from spray and from dead or falling insects. Remove or cover milking utensils before application. Wash teats of animals before milking.

All outdoor applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

- (1) Treatment to soil or vegetation around structures;
- (2) Applications to lawns, turf, and other vegetation;
- (3) Applications to building foundations, up to a maximum height of 3 feet.

Other than applications to building foundations, all outdoor applications to impervious surfaces such as sidewalks, driveways, patios, porches, and structural surfaces (such as windows, doors, and eaves) are limited to spot and crack-and-crevice applications only.

Do not water the treated area to the point of run-off.

Do not make applications during rain.

INDOOR USE AREAS

Bakeries, Flour Mills, Granaries, Meat Packing Plants, Truck Trailers, Beverage Plants, Food Processing Plants, Industrial Installations, Railroad Cars, Warehouses, Canneries, Grain Elevators, Kennels, Ships' Holds

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE AND SPILL PROCEDURES: Store upright at room temperature. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING:

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

Rigid, Non-refillable containers, small enough to shake (i.e., with capacities equal to or less than 5 gallons)

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Clarke Mosquito Control Products, Inc. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CLARKE MOSQUITO CONTROL PRODUCTS, INC. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Clarke Mosquito Control Products, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, CLARKE MOSQUITO CONTROL PRODUCTS, INC. DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT CLARKE MOSQUITO CONTROL PRODUCTS, INC.'S ELECTION, THE REPLACEMENT OF PRODUCT.

FLIT® is a Registered Trademark of Clarke Mosquito Control Products, Inc.

In Case Of Medical Emergency, Call The International Poison Control Center 1-800-214-7753

In Case Of Transportation Emergency, Call Info-Trac 1-800-553-5053

For More Information Call: 1-800-323-5727

Application Sites	Pests Controlled	Use Directions	Diluent	Dilution Rate	Application Rate
LIVESTOCK SPRAY: Dairy & Beef Cattle, Sheep, Goats, Swine, Horses, and Poultry (For swine, do not ship animals for slaughter within 5 days of last treatment).	Horn Flies, House Flies, Mosquitoes, and Gnats	Apply to wet the hair thoroughly, with particular attention to topline, underline, flanks, withers, and other infested areas. Repeat treatment at intervals of 5 to 12 days for small insect populations or as needed when flies are emerging in large numbers.	Water	1 part concentrate in 100 parts water (1.3 fl ounces per gallon)	
	Stable Flies, Horse Flies, and Deer Flies	Apply a quart per adult animal to wet the hair thoroughly with particular attention to the legs, flanks, barrel, topline, and other body areas commonly attacked by these flies. Repeat daily as needed.	Water	1 part concentrate in 100 parts water (1.3 fl ounces per gallon)	
	Face Flies	Apply using spray which produces large wetting droplets. Apply to the face of the animal in the morning before release to pasture. Apply sufficiently to wet the face but not more than 1.5 ounces per animal. Repeat daily as needed.	Water	1 part concentrate in 100 parts water (1.3 fl ounces per gallon)	
	Sheep "ticks" or keds	Thoroughly wet all portions of the body by dipping or by spraying with sufficient pressure and with a nozzle adjustment to give penetration of the wool. Treat at a rate sufficient to wet the animal.	Water	1 part concentrate in 100 parts water (1.3 fl ounces per gallon)	
	Fleas on Livestock (To kill and to protect against reinfestation)	Wet the animal by dipping or spraying	Water	1 part concentrate in 20 parts water (6.5 fl ounces per gallon)	
AS A SPACE SPRAY LIVESTOCK PREMISES: Barns, Milking Parlors, Milk Rooms, Dairies, Poultry Houses, Swine and Livestock Housing, Bakeries, Beverage Plants, Canneries, Flour Mills, Food Processing Plants, Granaries, Industrial Installations, Kennels, Meat Packaging Plants, Railroad Cars, Ships' Holds, Truck Trailers, Warehouses	Fleas, Mosquitoes, and Gnats	Apply as a fog or fine mist, directing the spray toward the ceiling and upper corners until the area is filled with mist, using about 2 ounces per 1000 cubic feet of space. For best results, close doors and windows before spraying and keep them closed for ten to fifteen minutes. Vacate the treated area and ventilate before reoccupying. Repeat treatment daily as needed.	Water	1 part concentrate in 20 parts water (6.5 fl ounces per gallon)	2 ounces per 1000 cubic feet
	House Flies, Fruit Flies, Gnats, Mosquitoes, Skipper Flies, Wasps, Hornets, Bees, Black Flies, Small Flying Moths.	Apply with mechanical or compressed air equipment (non-thermal) adjusted to deliver a fine mist. Close doors and windows and shut off ventilating systems. When using an oil dilution for space spraying extinguish all flames and pilot lights when applying. For rapid control of Houseflies, Fruit Flies, Gnats, Mosquitoes, Skipper Flies, Wasps, Hornets, Bees, Black flies, Small Flying Moths, direct spray at an upward angle distributing uniformly through the entire area at a rate of 1 ounce per 1000 cubic feet of space. Keep area closed for at least 10 minutes. Vacate areas after treatment and ventilate and sweep up dead insects before reoccupying. For rapid kill of exposed or accessible stages of other insects named on this label, apply using conventional mechanical or compressed air equipment (non-thermal) following directions for space spraying.	Oil or Water	1 part concentrate in 20 parts oil or water (6.5 fl ounces per gallon)	1 ounce per 1000 cubic feet

MANUFACTURED BY:
CLARKE MOSQUITO CONTROL PRODUCTS, INC.
159 N. GARDEN AVENUE
ROSELLE, ILLINOIS 60172 U.S.A.

EPA Reg. No.: 8329-67
EPA Est. No.:

Lot No.: Marked On Container
Net Contents: Marked on Container

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Aqua Zenivex™ E20

For use only by federal, state, tribal or local government officials responsible for public health or vector control, or by persons certified in the appropriate category or otherwise authorized by the state or tribal lead pesticide regulatory agency to perform adult mosquito control applications, or by persons under their direct supervision.

- **FOR EFFECTIVE ADULT MOSQUITOES, NON-BITING MIDGE CONTROL AND BLACK FLY CONTROL**
- **FOR USE AS A ULV, THERMAL OR SPACE SPRAY BY AIR AND GROUND APPLICATION TO CONTROL ADULT MOSQUITOES**
- **APPROVED FOR USE OVER AGRICULTURAL CROPS (INCLUDING THOSE INTENDED FOR HUMAN CONSUMPTION), PASTURE AND RANGELAND**
- **CAN BE USED UNDILUTED OR DILUTED**
- **FORMULATION ALLOWS DILUTION WITH WATER RATHER THAN OIL**
- **QUICK PERMANENT KNOCKDOWN OF ADULT MOSQUITOES AND OTHER TARGET INSECTS**
- **CONTROLS NON-BITING MIDGES AND NUISANCE FLIES**
- **CONTROLS ADULT MOSQUITOES THAT MAY CARRY WEST NILE, EASTERN EQUINE ENCEPHALITIS, ST. LOUIS ENCEPHALITIS, AND CHIKUNGUNYA VIRUSES**

SPECIMEN LABEL

ACTIVE INGREDIENT:

Etofenprox (CAS #80844-07-1) 20%

OTHER INGREDIENTS: 80%

TOTAL 100%

Contains 1.48 lbs Etofenprox per gallon

EPA Reg. No. 89459-81 EPA Est. No. 2724-TX-1

KEEP OUT OF REACH OF CHILDREN

WARNING

See additional Precautionary Statements

PRECAUTIONARY STATEMENTS – HAZARDS TO HUMANS & DOMESTIC ANIMALS – WARNING

Causes substantial but temporary eye injury. Do not get in eyes. Avoid contact with skin or clothing. Applicators and other handlers must wear long-sleeved shirt, long pants, socks and shoes. Repeated exposure to etofenprox can cause skin irritation.

FIRST AID

If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice. <p style="text-align: right;">(continued)</p>
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If on skin

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-248-7763 for emergency medical treatment information.

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them. Wash thoroughly with soap and water after handling. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing/PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic organisms, including fish and aquatic invertebrates. Runoff from treated areas or deposition into bodies of water may be hazardous to fish and other aquatic organisms. Do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from water in order to minimize incidental deposition into the water body. Do not contaminate bodies of water when disposing of equipment rinsate or washwaters.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Time applications to provide the maximum possible interval between treatment and the next period of bee activity. Do not apply to blooming crops or weeds when bees are foraging the treatment area, except when applications are made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ AND FOLLOW ALL LABEL DIRECTIONS. Before making the first application of the season, it is advisable to consult with the state or tribal agency with primary responsibility for pesticide regulation to determine if other regulatory requirements exist.

PRODUCT INFORMATION

Aqua Zenivex™ E20 is an effective insecticide used at low doses to control adult mosquitoes, non-biting midges, biting and non-biting flies. Use Aqua Zenivex™ E20, either undiluted as Ultra-Low Volume (ULV) or diluted with water, for the control of pest species in or near residential, industrial, commercial, urban, recreational areas, woodlands, golf courses, and other areas where these pests are a problem. Aqua Zenivex™ E20 may be applied over agricultural areas prior to or following harvest for the control of adult mosquitoes within or adjacent to these areas. Apply Aqua Zenivex™ E20 aerially (both fixed and rotary aircraft) for low volume applications or through mist-blowers, backpack, and handheld sprayers for ground applications. Aqua Zenivex™ E20 will control non-biting midges, black flies and mosquitoes and can be used as part of a total integrated pest management program for controlling disease vectors. Apply Aqua Zenivex™ E20 at rates from 0.00175 to 0.00700 pounds of etofenprox per acre. Dilute this product with water. Apply when wind is ≥ 1 mph. Do not apply when wind speeds exceed 10

mph. A temperature inversion is preferable to keep the fog close to the ground and apply when labeled insects are most active.

Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per site per year. More frequent treatments may be made to prevent or control a threat to public and/or animal health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease-causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort.

GROUND APPLICATION

Use a vehicle-mounted cold aerosol ULV sprayer to apply the product. Direct the spray equipment nozzle to provide even distribution of the product. For best results, apply perpendicular to the wind direction using a swath width of 300 ft. Spray equipment must be adjusted so that the volume median diameter (VMD) is between 7-30 microns ($10\mu \leq D_{v0.5} \leq 30\mu$) and that 90% of the spray is contained in droplets smaller than 50 microns ($D_{v0.9} < 50\mu$). Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be tested at least annually to confirm that nozzle flow rate(s) are properly calibrated.

The appropriate application rate can be achieved by altering the dilution rate of Aqua Zenivex™ E20. Refer to the following chart for examples.

Application rate pound AI per acre	Vehicle Speed MPH	Flow rates			
		Undiluted	Diluted 1 to 1	Diluted 1 to 2	Diluted 1 to 4.5
		Oz/minute	Oz/minute	Oz/minute	Oz/minute
0.00175	10	0.9	1.8	2.7	5.0
	15	1.4	2.7	4.1	7.6
	20	1.8	3.6	5.5	10.1
0.00350	10	1.8	3.6	5.5	10.1
	15	2.7	5.4	8.3	15.1
	20	3.6	7.2	11.0	20.2
0.00700	10	3.6	7.2	11.0	20.2
	15	5.4	10.8	16.5	30.3
	20	7.2	14.4	22.0	40.4

Use the higher label rates when spraying areas where dense vegetation is present. Conduct applications when temperatures are between 50-95° F.

Backpack Sprayer ULV Application: Apply Aqua Zenivex™ E20 diluted or undiluted through non-thermal ULV backpack sprayer capable of applying the product in the 7 to 30 micron range. Apply product to the area as evenly as possible. Apply at the rate of 0.00175 to 0.00700 pounds etofenprox per acre.

Urban ULV Mosquito Control Applications: For control of

resting or flying adult mosquitoes, biting flies and non-biting midges in areas such as utility tunnels, sewers, storm drains and catch basins, pipe chases, underground basements, underground passages, parking decks, crawl spaces or uninhabited buildings, apply Aqua Zenivex™ E20 using mechanical foggers, handheld or truck-mounted ULV equipment, thermal foggers or other spray equipment suitable for this application. Apply Aqua Zenivex™ E20 at rates up to but not exceeding 0.00700 pounds of etofenprox per acre.

Thermal Fogging Application: Apply using a truck, dolly mounted, handheld, or other thermal fogging equipment. Following the equipment manufacturer's instructions, apply this product at a rate of 0.00175 to 0.00700 pounds etofenprox per acre. Direct fog to areas where mosquitoes and other pests are located. The volume median diameter (VMD) of droplets produced by thermal foggers is less than 60 microns ($Dv_{0.5} < 60\mu$) and 90% of the spray is contained in droplets smaller than 100 microns ($Dv_{0.9} < 100\mu$).

AERIAL APPLICATION

Apply Aqua Zenivex™ E20 aerially, either diluted or undiluted, by fixed wing or rotary aircraft. Apply at the rate of 0.00175 to 0.00700 pounds of etofenprox per acre. Apply using ULV equipped and capable aircraft. Spray equipment must be adjusted so that the volume median diameter (VMD) produced is less than 60 microns ($Dv_{0.5} < 60\mu$) and that 90% of the spray is contained in droplets smaller than 100 microns ($Dv_{0.9} < 100\mu$). Directions from the equipment manufacturer or vendor, pesticide registrant, or test facility using a wind tunnel and laser-based measurement instrument must be used to adjust equipment to produce acceptable droplet size spectra. Application equipment must be calibrated annually to confirm that nozzle flow rate(s) are accurate. Do not apply Aqua Zenivex™ E20 at altitudes below 100 feet. Apply at altitudes from 100–300 feet. Apply when wind speed on the ground is ≥ 1 mph. Apply when labeled insects are most active. For best results, use Global Positioning System (GPS) equipped aircraft.

Applications over crops or to areas favoring drift over crops

Aqua Zenivex™ E20 may be applied over crops (including row, tree, fruit, citrus, pasture and other areas where agricultural enterprises take place) or to areas where drift over cropland could occur. Aqua Zenivex™ E20 can be applied to these areas by either ground or aerial application. Use label rates and follow Directions For Use as directed in this label. Applications over crops or where drift may occur over crops are limited to 4 applications per month to the same site but no more than two applications within a seven day interval. Do not apply more than 0.028 pounds of active ingredient per month to the same site within a month. Do not spray more than 0.18 lbs etofenprox per acre per site per year. Do not make more than 25 applications per

site per year.

IN FLORIDA: Aerial applications of this product require trained personnel to perform industry accepted assays to monitor resistance formation in targeted mosquitoes.

PESTICIDE STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Storage and Spill Procedures: Store upright at room temperature, but do not store at temperatures below 50° F. Avoid exposure to extreme temperatures. In case of spill or leakage, soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Disposal: Refillable 275 Gallon Totes: Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. If not refilled, offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration. To clean the container before final disposal, triple rinse (or equivalent) promptly after emptying. Triple rinse as follows. Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

In case of an emergency or for product use information, call 1-800-248-7763.

To the extent consistent with applicable law, seller makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risks of use and handling of this material when such use and handling are contrary to label instructions.

Manufactured for:

Central Garden & Pet Company
1501 East Woodfield Road 200W
Schaumburg, Illinois 60173



VEC 16-020

Aqua Zenivex and Zoecon with design are
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May 2016
Schaumburg, IL

Chikungunya Virus:

What you need to know



Chikungunya (pronunciation: \chik-en-gun-ye) is:

- ◆ A virus spread through *Aedes* species mosquito bites. *Aedes* mosquitoes also spread dengue and Zika viruses.
- ◆ A risk to anyone traveling to a region of the world where chikungunya virus is found.



Global risk

Outbreaks have occurred in parts of Africa, Europe, Southeast Asia, and islands in the Indian and Pacific Oceans.

In 2013, chikungunya was found for the first time in the Americas and has spread to the Caribbean, South and Central America, and North America.

For information on where chikungunya virus is found, see: <http://www.cdc.gov/chikungunya/geo/>.

Traveling? For country-specific travel information and recommendations, visit www.cdc.gov/travel.

Signs and symptoms of chikungunya virus disease (chikungunya)

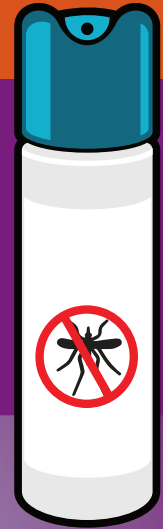
- ◆ Common symptoms include fever and severe joint pain. Other symptoms may include headache, muscle pain, joint swelling, or rash.
- ◆ Symptoms usually begin 3—7 days after being bitten by an infected mosquito.
- ◆ Most patients will feel better within a week. In some people, the joint pain may persist for months. Death is rare.
- ◆ People at risk for more severe disease include newborns infected around the time of birth, older adults (≥ 65 years), and people with medical conditions such as high blood pressure, diabetes, or heart disease.



Sick? Could it be chikungunya?



- ◆ See your healthcare provider.
- ◆ Your healthcare provider may order tests to look for chikungunya or similar diseases, like dengue or Zika.



Chikungunya is preventable, but not treatable

- ◆ No vaccine to prevent or medicine to treat infection is available.
- ◆ Mosquitoes that spread chikungunya bite aggressively during the day. Avoid infection by preventing mosquito bites.
 - » Use insect repellents. Repellents containing DEET, picaridin, IR3535, and some oil of lemon eucalyptus or para-menthane-diol products provide long-lasting protection.
 - » Use air conditioning or window/door screens.
 - » Wear long-sleeved shirts and long pants or permethrin-treated clothing.
 - » Once a week, empty and scrub, turn over, cover, or throw out items that hold water, such as tires, buckets, planters, toys, or trash containers. Check inside and outside your home.



If you are sick with chikungunya:

- ◆ During the first week of infection, chikungunya virus can be found in your blood. If a mosquito bites you, it can become infected and spread the virus to other people through bites.
- ◆ To help prevent others from getting sick, protect yourself from mosquito bites during the first week of illness.



ZIKA BASICS

ZIKA BASICS AND HOW TO PROTECT YOURSELF

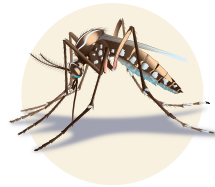


How Zika Spreads

Zika virus spreads to people primarily through the bite of an infected *Aedes* species mosquito (*Ae. aegypti* and *Ae. albopictus*). The mosquitoes that spread Zika can bite at day and night.

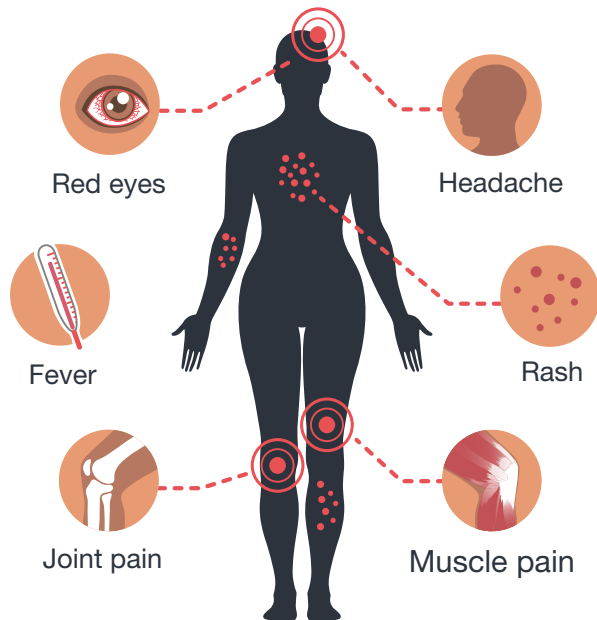
Zika virus can also spread

- During sex with a person who has Zika to his or her sex partners.
- From a pregnant woman to her fetus during pregnancy or around the time of birth.
- Through blood transfusion (likely but not confirmed).



Zika Symptoms

Many people infected with Zika won't have symptoms or will only have mild symptoms. The most common symptoms are fever, rash, headache, joint pain, red eyes, and muscle pain. Symptoms can last for several days to a week. People usually don't get sick enough to go to the hospital, and they very rarely die of Zika. Once a person has been infected with Zika, they are likely to be protected from future infections.



Visit our [Areas with Risk of Zika](#) webpage to find out where Zika is spreading.

www.cdc.gov/zika



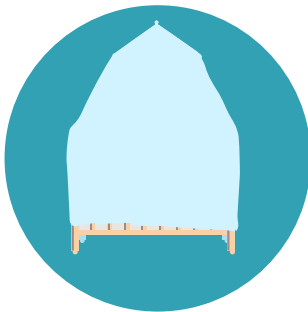
Why Zika is Risky for Some People

Zika infection during pregnancy can microcephaly and other birth defects. Microcephaly is a birth defect in which a baby's head is smaller than expected when compared to babies of the same sex and age. There have also been increased reports of Guillain-Barré syndrome, an uncommon sickness of the nervous system, in areas affected by Zika.



How to Prevent Zika

There is no vaccine to prevent Zika. The best way to prevent diseases spread by mosquitoes is to protect yourself and your family from mosquito bites and from getting Zika through sex. **Here's how:**



- Wear long-sleeved shirts and long pants.
- Stay in places with air conditioning and window and door screens to keep mosquitoes outside.
- Take steps to control mosquitoes [inside and outside your home](#).
- Treat your clothing and gear with permethrin or buy pre-treated items.
- Use [Environmental Protection Agency \(EPA\)-registered](#) insect repellents. Always follow the product label instructions.
- When used as directed, these insect repellents are proven safe and effective even for pregnant and breastfeeding women.
 - Do not use insect repellents on babies younger than 2 months old.
 - Mosquito netting can be used to cover babies younger than 2 months old in carriers, strollers, or cribs to protect them from mosquito bites.
 - Do not use products containing oil of lemon eucalyptus or para-menthane-diol on children younger than 3 years old.
- Sleep under a mosquito bed net if air conditioned or screened rooms are not available or if sleeping outdoors.
- [Prevent sexual transmission of Zika by using condoms or not having sex.](#)

What to Do if You Have Zika

There is no specific medicine to treat Zika. Treat the symptoms:

- Get plenty of rest.
- Drink fluids to prevent dehydration.
- Take medicine such as acetaminophen to reduce fever and pain.
- Do not take aspirin or other non-steroidal anti-inflammatory drugs.
- If you are taking medicine for another medical condition, talk to your healthcare provider before taking additional medication.

To help prevent others from getting sick, strictly follow steps to prevent mosquito bites during the first week of illness.



www.cdc.gov/zika

ZIKA: What you need to know.

WHAT WE KNOW ABOUT ZIKA

- **Zika is a viral disease spread to people mostly through the bite of an infected mosquito.** It is transmitted primarily by the yellow fever mosquito (*Aedes aegypti*). The Asian tiger mosquito (*Aedes albopictus*), which is common in Northern Virginia, can also spread the virus. These are both aggressive, daytime-biting mosquitoes.
- **There is a risk of Zika being imported into Virginia and being transmitted by local mosquitoes.**
- Zika can be passed through sex from a person who has Zika to his or her partners even if the infected person does not have symptoms.
- Zika may be transmitted through blood transfusions.
- Zika can pass from a pregnant woman to her fetus.
- **Infection with Zika during pregnancy can cause birth defects in babies, including microcephaly** (a condition in which a baby's head is smaller than expected).
- **Pregnant women should not travel to areas with active Zika transmission.**
- **There is no vaccine or medicine for Zika.**
- Based on information about similar infections, once a person has been infected with Zika, he or she is likely to be protected from future Zika virus infections.
- Local mosquito-borne Zika virus transmission has been reported in the continental United States.



(*Aedes albopictus*, or Asian tiger mosquito, is common in Northern Virginia.)

DO YOUR PART FROM THE START: Prevent & Protect Against Mosquito Bites!

Control Mosquitoes in Your Yard

- *Aedes* mosquitoes lay eggs in containers. **To prevent mosquitoes in your yard, eliminate standing water weekly.** Tip and toss water from containers like tires, buckets, flower pots, drain pipes, tarps, bird baths, toys, etc. Scrub the inside of containers, discard them or place indoors.
- If you cannot dump water from a container, **treat it with a larvicide** like *Bacillus thuringiensis var. israelensis* (follow label instructions).
- If mosquitoes are biting, **use insecticides in your yard** to control them. Treat areas where they rest, such as dense vegetation or ground cover (follow label instructions).



Prevent Mosquito Bites

- **Use EPA-registered insect repellents** containing DEET, picaridin, oil of lemon eucalyptus or IR3535 (follow label instructions).
- **Cover exposed skin.** Wear light-colored, long-sleeved shirts and long pants.
- **Treat clothing with permethrin.** Treated clothing remains protective after multiple washings. Never apply permethrin to skin (follow label instructions).
- **Keep window and door screens in good repair** to keep mosquitoes out.

SYMPTOMS OF ZIKA

Most people with Zika won't even know they have it. The illness is usually mild with symptoms lasting for several days to a week.

The most common symptoms of Zika are fever, rash, joint pain and conjunctivitis (red eyes). Other symptoms include muscle pain and headache. If you suspect you may be infected with Zika, contact your medical practitioner, especially if pregnant. Even if you do not feel sick, take steps to prevent mosquito bites for three weeks by staying indoors or wearing protective clothing and insect repellent. This will help prevent mosquitoes from biting you and spreading the virus to others in the community.

RESOURCES

www.fairfaxcounty.gov/hd/westnile/zika-virus.htm

<http://www.vdh.virginia.gov/zika/>

<https://www.cdc.gov/zika/>

Fairfax County Health Department

A Fairfax County, Va., publication. Updated Feb. 2017. To request this information in an alternate format, please call the Health Department at 703-246-2411, TTY 711.





Understanding Tick Bites and Lyme Disease



How to prevent tick bites



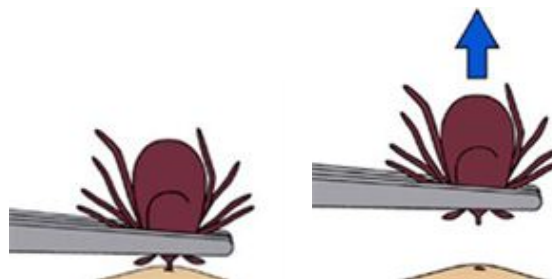
Ticks can spread disease, including Lyme disease.

Protect yourself:

- Use Environmental Protection Agency (EPA)-registered insect repellents containing DEET, picaridin, IR3535, oil of lemon eucalyptus, para-menthane-diol, or 2-undecanone. Always follow product instructions.
- Wear clothing treated with permethrin.
- Shower as soon as possible after spending time outdoors.
- Check for ticks daily. Ticks can hide under the armpits, behind the knees, in the hair, and in the groin.
- Tumble clothes in a dryer on high heat for 10 minutes to kill ticks on dry clothing after you come indoors. If the clothes are damp, additional time may be needed.

How to remove a tick

1. Use fine-tipped tweezers to grasp the tick as close to the skin's surface as possible.
2. Pull upward with steady, even pressure to remove the tick. Avoid twisting or jerking.
3. Clean the bite area and your hands with rubbing alcohol or soap and water.



Notes:

- Remove the tick as soon as possible to reduce your chances of getting an infection from the tick bite.
- Don't use nail polish, petroleum jelly, or a hot match to make the tick detach.
- If tick mouthparts remain in the skin, leave them alone. In most cases, they will fall out in a few days.



**U.S. Department of
Health and Human Services**
Centers for Disease
Control and Prevention



Facial paralysis.



Bull's eye rash on the back.



Arthritic knee.



When to see your healthcare provider

If you develop a rash, fever, exhaustion, or joint and muscle aches within several weeks of removing a tick or spending time in tick habitat, see your healthcare provider. Be sure to mention your recent tick bite and when it happened, or that you've spent time in places where ticks may live.

If left untreated, Lyme disease can affect the joints, heart, or nervous system.

Antibiotics treat Lyme disease

People treated with antibiotics in the early stages of Lyme disease usually recover rapidly and completely. The antibiotics most commonly used to treat Lyme disease include: doxycycline, amoxicillin, or cefuroxime axetil.

Looking ahead to recovery

Rest and take antibiotics as prescribed. Recovery may take several weeks or longer.

Some people wonder if there is a test to confirm that they are cured, but there is no such test. Retesting for Lyme disease is not recommended because blood tests might be positive for months or years after you have been treated. A positive test doesn't mean you are still infected. It simply means that your immune system remembers your infection.

You can get Lyme disease again if you are bitten by another infected tick, so protect yourself from tick bites.

For more information see www.cdc.gov/Lyme and www.cdc.gov/Ticks

Board Agenda Item
March 5, 2019

ACTION - 2

Approval of a Resolution Endorsing Route 50 Improvements for Highway Infrastructure Program (HIP) Funding Consideration (Sully District)

ISSUE:

Board approval of a resolution (Attachment 1) endorsing an application submitted by Fairfax and Loudoun Counties to Northern Virginia Transportation Authority (NVTA) for Highway Infrastructure Program (HIP) federal funding.

RECOMMENDATION:

The County Executive recommends that the Board of Supervisors approve a resolution substantially in the form of Attachment 1 endorsing Route 50 Improvements for HIP federal funding consideration.

TIMING:

Board of Supervisors' approval is requested on March 5, 2019, to provide NVTA a resolution of support that will be added to the grant application.

BACKGROUND:

The United States Department of Transportation (USDOT) Appropriations Act, 2018, Title I of division Public Law (Pub L) 115-141, appropriated \$2.525 billion in funding for the HIP. Of this amount, \$1.98 billion was set aside and apportioned for activities eligible under section 133(b) (1) (A) of Title 23, United States Code (U.S.C.). Eligibilities under this section include: construction of highways, bridges, tunnels, and local access roads under section 14501 of Title 40, U.S.C.

The Commonwealth of Virginia receives \$16.4 million of the apportionment, with Northern Virginia receiving \$7.4 million of this total. Responsibility for project selection for funding award has been designated to NVTA. Applications were due January 31, 2019, with submissions from Prince William County, and Fairfax and Loudoun Counties submitting as co-applicants.

Loudoun County led a study of the Route 50 Corridor that focused on intersection improvements between Stone Springs Boulevard in Loudoun County and Centreville Road/Walney Road in Fairfax County. Intersections proposed for improvement in the study included several in Loudoun County, and the following in Fairfax County that are ready and practical for immediate implementation:

Board Agenda Item
March 5, 2019

- Avion Parkway/Airline Parkway
- Centreville Road and Walney Road

Loudoun County has approved \$5,465,000 in FY 2019 for preliminary engineering, design, environmental, and construction work at various intersections. The joint application requests \$4,000,000 to complete work at other intersections. If awarded, the improvements at the locations above would be advanced in Fairfax County.

NVTA considered applications at its February 13, 2019, meeting. Their approval will be forwarded to the Commonwealth Transportation Board (CTB) for further consideration in June 2019 following the Board's endorsement. If approved, it is anticipated that the projects would be implemented by VDOT.

FISCAL IMPACT:

There is no impact to the General Fund associated with this action.

CREATION OF POSITIONS:

No positions will be created through this action.

ENCLOSED DOCUMENTS:

Attachment 1 – Approval of a Resolution Endorsing Route 50 Improvements Project Submission for the Highway Infrastructure Program

STAFF:

Rachel Flynn, Deputy County Executive
Tom Biesiadny, Director, Fairfax County Department of Transportation (FCDOT)
Todd Wigglesworth, Chief, Coordination and Funding Division, FCDOT
Leonard Wolfenstein, Section Chief, Transportation Planning Division
Nanditha Paradkar, Transportation Planner, Transportation Planning Division
Ray Johnson, Section Chief, Coordination and Funding, FCDOT
Noelle Dominguez, Section Chief, Coordination and Funding, FCDOT

Fairfax County Board of Supervisors Resolution

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Fairfax County Government Center of Fairfax, Virginia, on Tuesday, March 5, 2019, at which meeting a quorum was present and voting, the following resolution was adopted.

RESOLUTION

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of Fairfax County, Virginia, hereby endorses the joint submission by Fairfax and Loudoun Counties of the Route 50 Improvements Project to the Northern Virginia Transportation Authority (NVTA) for federal Highway Infrastructure Program FY 2018 funding.

Adopted this 5th day of March 2019, Fairfax, Virginia.

ATTEST _____
Catherine A. Chianese
Clerk to the Board of Supervisors

ACTION - 3

Approval of the Calendar Year 2019 Forest Pest Management Program

ISSUE:

Board approval of the Calendar Year 2019 Forest Pest Management Program.

RECOMMENDATION:

The County Executive recommends that the Board of Supervisors direct staff to take the following actions concerning Fairfax County's Calendar Year 2019 Forest Pest Management Program:

Gypsy Moth

- a. Continue a monitoring program for life stages of the gypsy moth in all areas of the County.
- b. Continue to conduct an outreach program targeting the tree care industry and residents of the County in monitoring of gypsy moth populations.

Fall Cankerworm

- a. Continue a monitoring program for all life stages of the fall cankerworm in the County.
- b. Continue fall cankerworm spring defoliation surveys.
- c. Continue community outreach to enlist community participation to assist in monitoring cankerworm populations.

Emerald Ash Borer (EAB)

- a. Continue to inventory the County for ash resources as well as investigate new control methods for EAB, including the use of biological control.

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- b. Continue a control program for this pest on high value ash trees on Fairfax County and Northern Virginia Regional Park Authority owned properties. Staff plans to use the trunk injected pesticide TRE-äge® (Attachment I).
- c. Monitor ash trees that were treated as part of the previous year's program to determine the effectiveness of the control.
- d. Monitor areas where EAB parasitoids were previously released to determine if parasitoids can be recovered. Investigate additional areas that are suitable for parasitoid release.
- e. Continue to implement an extensive outreach program targeting the tree care industry and residents of the County on emerald ash borer control methods and removal of dead ash trees.
- f. Coordinate the remediation of damage caused by EAB, including the removal of dead ash trees from County property, if the Board enacts proposed amendments to Appendix I of the Fairfax County Code. A separate Board item is included for the March 5, 2019 Board meeting requesting authorization to advertise a public hearing regarding proposed changes to Appendix I.

Thousand Canker Disease of Walnut

- a. Continue to explore the potential impact of this disease that is threatening black walnut (*Juglans nigra*).
- b. Continue to provide outreach opportunities for residents on methods for protecting black walnut trees on their property.
- c. Investigate new control methods for the walnut twig beetle, including the use of biological control.

Sudden Oak Death Disease (SOD)

- a. Continue to conduct a monitoring program in order to determine if SOD is present in the County.
- b. Continue to develop a management plan in the event SOD is discovered in the County.

Hemlock Woolly Adelgid (HWA)

- a. Continue a control program in naturally occurring stands of eastern hemlock on County and Northern Virginia Regional Park Authority property. Staff has selected two sites in the Dranesville and Springfield districts and may provide control at each site. Staff plans to use the soil or trunk injected pesticides IMA-jet® (Attachment II), Safari® (Attachment III), CoreTect® (Attachment IV).
- b. Continue to monitor hemlock trees that were treated as part of the previous year's program to determine the effectiveness of control.
- c. Establish partnerships with other local and regional authorities to provide treatment for HWA.
- d. Investigate new control methods for HWA, including the use of biological control.

Asian Longhorned Beetle (ALB)

- a. Continue to update the long-term management plan for the ALB (*Anoplophora glabripennis*).
- b. Continue to conduct an outreach program in order to educate the public and private industry on the potential impacts of this pest.
- c. Continue the survey of ALB in areas that have been identified as being at high risk for ALB introduction.

Spotted Lanternfly

- a. Continue to monitor scientific research for this pest to determine its impact on trees in the County should it arrive (Attachment V).
- b. Initiate a survey on all life stages in all areas of the County.

Beech Bark Disease (BBD)

- a. Initiate a monitoring program for this pest in areas with known beech stands on County owned properties.

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Forest Health Initiative

- a. Continue to evaluate forest health using data from the i-Tree™ survey conducted in 2017.
- b. Initiate a survey to evaluate the soil microbiota and its effects on forest health.

TIMING:

Board action is requested on March 5, 2019. The timing of this item corresponds with the beginning of program monitoring activities.

BACKGROUND:

The Code of the County of Fairfax, Virginia requires the submission of the annual Integrated Pest Management Program proposal for Board of Supervisors' approval.

Gypsy Moth

Based on egg mass surveys conducted during the fall of 2018, staff has determined that gypsy moth populations have remained low. The Forest Pest Program found no infestations of gypsy moth that warrant treatment in calendar year 2019.

Gypsy moth populations, like all insect populations, are cyclical in nature. Periods of high pest levels are followed by periods of low pest levels. There are many factors which influence the timing and duration of pest outbreaks and declines. Staff believes that the current low gypsy moth pest levels are the result of effective treatment programs in the past and a fungal disease, *Entomophaga maimaiga*. Gypsy moth caterpillars are very susceptible to *E. maimaiga*, a moisture dependent fungal disease. This disease is naturally occurring in the environment and can potentially have a dramatic effect on gypsy moth populations if there is sufficient rainfall during the spring when caterpillars are small. It should be noted that most areas that have gypsy moth in the United States have experienced similar population decreases. There have been outbreaks observed in parts of the eastern United States in 2018. Attachment VI portrays the cumulative gypsy moth defoliation in Virginia from 1984 to 2009. This map shows that the County's gypsy moth suppression program continues to meet its program goals by keeping gypsy moth populations below defoliation levels. Note: The gypsy moth population crashes since the mid 1990's are due to *E. maimaiga*.

Fall Cankerworm

Fall cankerworm populations were monitored this winter in those areas of the County that have experienced outbreaks in the past, as well as those areas identified by staff as

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having significant cankerworm activity last spring. Results of monitoring indicate that fall cankerworm populations have declined in the Mount Vernon, Lee, and Mason magisterial districts. Staff has identified no areas that will require treatment in 2019.

The method used for this monitoring for fall cankerworm is a United States Department of Agriculture, Forest Service recommended technique that involves trapping female moths as they emerge in the winter.

Over the last several years staff has received input from civic groups in regard to the strategies that are used to implement this control program. Staff has worked diligently to explore ways to refine and improve this program so that these concerns can be addressed.

Parasite Study - Fall cankerworms have natural predators that can be influential in their population levels. One explanation for outbreak populations in these areas is a lack of predator controls like *Telenomus alsophilae*, an egg parasitoid. The purpose of this survey was to determine the population level of *T. alsophilae* in the County.

Collection sites are located in cankerworm banding sites. Staff collected eggs from survey bands that had eggs on them as well as from small branches of trees located near the bands. Cankerworm eggs were reared indoors and the number of viable eggs were counted to determine the level of parasitism.

The data acquired from this survey should prove useful in obtaining a better understanding of overall cankerworm population dynamics in the County as well as locating areas of concern to be targeted in the ensuing year's fall cankerworm banding survey. The results of this study, in conjunction with sticky banding methods, should provide a larger picture of a potentially declining cankerworm population.

Defoliation Survey – In 2018, staff conducted an extensive defoliation survey to measure the damage caused by fall cankerworm. The purpose of this survey was to determine those areas of the County where fall cankerworm larvae have impacted the County's urban forest resources through foliar feeding and to quantify this feeding damage as a percentage of canopy defoliated. The data acquired from this survey should prove useful in obtaining a better understanding of overall cankerworm population dynamics in the County as well as locating areas of concern to be targeted in the ensuing year's fall cankerworm banding survey.

The defoliation survey for fall cankerworm consisted of two phases. The first phase of the survey consisted of a gridded ground survey. The grid was established in the known area of fall cankerworm activity in the southeastern portion of the County. Defoliation was quantified at each grid point. Nearly 500 ground-based surveys were

conducted. The second phase of the defoliation survey was an aerial survey. An aerial survey is only conducted if it is evident that there is a possibility of heavy defoliation. The aerial survey can be conducted to identify large areas of defoliation, as well as target large wooded tracts, such as those found on Mason Neck and in Huntley Meadows where a ground survey is impractical. The results of this survey indicated that there was no heavy defoliation from fall cankerworm in 2018.

Fall Cankerworm Taskforce – Due to the growing concern over fall cankerworm and the need for additional scientific study regarding cankerworm population dynamics and population monitoring, a multi-state cankerworm task force was established in the spring of 2015. The group, consisting of local and state agencies, as well as representation from universities hopes to establish standardized monitoring and treatment strategies for the future control and management of fall cankerworm. One of the outcomes of this taskforce has been a cooperative research project with Virginia Commonwealth University (VCU) and the County. VCU analyzed the County's cankerworm data to determine appropriate threshold counts as to when control of this insect may be needed in suburban/urban areas. To date, previous Forest Service research focused on large contiguous forested tracts. Researchers at VCU determined that a trap count of 200 female moths per band is more appropriate in declining populations than the previous threshold level of 90 female moths. Ongoing research will help determine appropriate female moth threshold levels for all outbreak phases of fall cankerworm.

Staff used band counts, 2018 defoliation surveys, and parasite surveys in determining whether control for fall cankerworm was warranted in the spring of 2019. Staff plan to continue these activities in 2019.

Emerald Ash Borer (EAB)

EAB was first identified in the County in 2003 at a school site in the Wolftrap area of the County. Due to the extremely destructive nature of this pest, the Virginia Department of Agriculture and Consumer Services (VDACS) and the United States Department of Agriculture (USDA) - Animal Plant Health Inspection Service (APHIS) ordered all ash trees within a one-half mile radius of the introduction site be removed and destroyed. Staff of the Forest Pest Program carried out this project during the spring of 2004 and immediately set in place a monitoring program for EAB.

Although staff feels that this eradication effort was effective, other infestations were found in other parts of the County in 2008. As a result of these detections and others in the Commonwealth, a quarantine was established that included the entire Commonwealth of Virginia.

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All interstate movement of infested ash wood and wood products from Virginia is now regulated, including firewood of all hardwood species, nursery stock, green lumber, waste, compost, and chips from ash trees. There is a federal contiguous EAB quarantine throughout parts of the Eastern and Midwestern United States. Movement of EAB regulated articles cannot exit the Federal quarantine boundaries without Federal permits. Violations of the federal quarantine governing interstate movement of regulated articles will be enforced by USDA-APHIS and are subject to federal penalties.

This insect has the potential to eliminate all ash trees in the County and will have huge economic impacts to homeowners, parks and private business. Researchers have developed control options for emerald ash borer and staff plans to implement a modest control program on ash trees on public lands within the County.

Staff has begun, and will continue to inventory County owned ash trees. Staff have selected ash trees for control based on historic or aesthetic value. Staff have coordinated with the agency that is responsible for the maintenance of the tree and have advised them of ongoing control activity. To date, there are roughly 175 ash trees in this control program.

EAB control will be accomplished using tree injection techniques that deliver the insecticide into the tree itself. Once injected, the insecticide is transported throughout the tree and will provide control for two to three years. The insecticide that will be used is a material that contains emamectin benzoate and is sold by the trade name TREE-äge® (Attachment I). Research indicates that the treatment used is the most effective option available. Staff has been effectively conducting this control activity. Staff proposes to investigate contracting with a tree care company if it is shown to be cost effective.

EAB parasitoids have been researched and proven to be an effective control option by various universities and government agencies. Staff have begun to investigate areas that qualify for the release of EAB parasitoids. In 2017 and 2018, EAB parasitoids were released in Fairfax County Park Authority (FCPA) properties. Staff have found new areas in the County that qualify for parasitoid release in 2019. The parasitoids were produced and supplied from the USDA EAB Parasitoid Rearing Facility in Brighton, Michigan. Staff will monitor these release sites to determine if parasitoids can be recovered as well as identifying additional areas that qualify for parasitoid release.

Hemlock Woolly Adelgid (HWA)

Staff continues to explore various control options for HWA. HWA is an insect that attacks and kills eastern hemlock (*Tsuga canadensis*) trees (Attachment VII). Native eastern hemlock is relatively rare in the County. The rarity of this species, the multiple benefits to wildlife and the natural beauty that they impart make them worthy of

protection. Staff will continue to inventory the County in order to identify the natural stands of eastern hemlock. For this year's program, staff has identified two native stands in the Dranesville and Springfield districts for control.

Control for HWA can be done through trunk or soil injection. Soil injection is an effective method providing control to the target trees. Once injected, an insecticide is transported in the soil near the roots for uptake. This will provide control for up to eight years. The insecticide that will be used for soil injection is a material that contains dinotefuran and is sold by the trade name Safari® (Attachment III). Another viable soil injection treatment option is using a soil pellet that contains imidacloprid and is sold by the trade name CoreTect® (Attachment IV). Trunk injection is another effective method for providing control to target trees. Once injected, an insecticide is transported throughout the tree and will provide control for up to eight years. The insecticide that will be used for soil injection is a material that contains imidacloprid and is sold by the trade name IMA-jet® (Attachment II). Treatment options are dependent on site location and condition. Staff has the ability to conduct this control activity, therefore treatment will be cost effective, as well as biologically effective. Staff will investigate other insecticide options that may provide better control for HWA.

In addition to chemical control, staff has released parasites of HWA in hopes of providing limited control. This effort was conducted in cooperation with local universities. The viability of releasing additional parasites in the future is being investigated.

Thousand Cankers Disease (TCD) of Black Walnut

Black walnut (*Juglans nigra*) is a native tree to the County. Foresters have observed a disease called thousand cankers disease that affects black walnut trees in the western United States in recent years, and have identified a beetle that spreads the disease. In the summer of 2010, black walnut trees were observed to be declining near Knoxville, Tennessee. Foresters confirmed that the beetle and disease had been artificially introduced to the eastern United States (Attachment VIII).

Thousand cankers disease was found in the vicinity of Richmond, Virginia in the summer of 2011 and, as a result, VDACS established a quarantine to curtail the movement of walnut material in hopes of slowing the spread of this disease. As a result of monitoring by staff in 2012 it was determined that this disease is present in the County. Staff recommends that resources, in the form of an outreach program, continue to be developed and implemented. Key targets of the outreach effort will include homeowners and private tree care companies.

Sudden Oak Death

In 1995, a disease was found to be killing oak trees in California. Scientists determined that the disease was caused by a fungus called *Phytophthora ramorum* or sudden oak death (SOD). This disease has caused wide scale tree mortality in the western United States (Attachment IX). Fortunately, SOD has only been found in a number of isolated locations in the eastern United States and officials feel that these infestations have been contained.

Like other invasive insects and diseases, diligent monitoring is critical in slowing the spread of SOD. Recent testing methods have been developed that are simple and cost effective and staff will continue to monitor for this disease following VDACS recommended monitoring techniques. Staff will continue to implement an outreach component that will educate private and public groups on this disease and its control.

Asian Longhorned Beetle (ALB)

ALB (*Anoplophora glabripennis*) is currently one of the biggest threats facing the forest ecosystems of the County. This beetle is an invasive insect that is thought to have been brought to the United States via wood packing material used in shipping (Attachment X). Since the mid 1990's, ALB infestations in Chicago, New York City, New Jersey, Boston, and most recently Ohio have been discovered. ALB will infest many hardwood species. According to recent analysis conducted by the County Urban Forest Management Division, approximately 4.2 million trees in the County are susceptible to this pest. ALB larvae will infest and kill trees by boring into the heartwood of the tree and disrupting its nutrient flow causing eventual tree death.

Wood boring beetles such as EAB and ALB are difficult to detect. Most ALB infestations in the United States have been established for a number of years before detection. This fact makes eradication particularly difficult since they have had time to spread well beyond the initial site of introduction. ALB has the potential to have drastic economic and social impacts should it be introduced in the County. It is critical that private and public tree care experts remain vigilant in monitoring for this pest. According to the USDA, Forest Service, most of the infestations found in the United States have been identified by tree care professionals and informed homeowners.

Spotted Lanternfly

Spotted lanternfly (*Lycorma delicatula*) is an insect that is native to Asia and was found in suburban Philadelphia, Pennsylvania in 2014. In January of 2018, this insect was found in Frederick County, Virginia. This insect feeds on a broad range of host trees including many found in the County. This insect is not known to be in the County but has the potential to cause a significant financial impact should it become established here. Staff proposes a modest monitoring program in at-risk areas of the County in

2019. Areas that are considered at-risk are light industrial sites and near fruit trees and vineyards.

Beech Bark Disease (BBD)

BBD affects American beech trees (*Fagus grandifolia*) through the effects of an insect and a fungal pathogen. The insect, a small, white, fuzzy scale known as *Cryptococcus fagisuga*, feeds on the bark. The multitude of wounds made by the feeding insects creates an entry point for a lethal fungus known as *Neonectria faginata*. The fungus arrives not long after the initial insect introduction and creates lesions under the bark. Once infested with *N. faginata*, the tree dies within a few years. BBD is present in portions of western Virginia, but it has not been found in the County (Attachment XI). Staff proposes a modest monitoring program in at-risk areas of the County in 2019.

It should be noted that there are many invasive forest insect pests and diseases that are potential threats to the forests of the County. Staff will continue to keep informed of developing invasive forest pest issues. Past experience with new insects and diseases has proven that diligent monitoring, detection and prevention are much more cost effective and more readily accepted by the public as compared to the use of insecticides.

Forest Health Initiative

The Forest Pest Management Branch conducted a countywide survey of the urban forest called i-Tree ECO™ in 2017. The study involved evaluating forest conditions in 204 randomly selected sites throughout the County. The i-Tree data and protocol will help influence the Forest Pest Management Branch to broaden its scope to include monitoring overall forest health. Staff is exploring the option of revisiting these sites in the future to help County agencies understand how condition of the trees and forests change over time.

Staff analyzed the 2017 data and will continue to use it to communicate ecosystem services such as stormwater runoff reduction, energy savings, carbon sequestration, and pollution removal among others (Attachment XII). Ongoing analyses include mapping at-risk forest resources which may be susceptible to invasive insects and diseases, both existing and future threats.

In 2018, staff recommended the use of existing funds to support an evaluation of soil microbiota (bacteria and mycorrhizae) and its effects on forest health. The soil would be collected from the same sites where i-Tree ECO™ data were collected. Evaluating soil microbiota can help in developing an overall metric for soil condition as it relates to overall ecosystem health including its influence on restoration in degraded urban sites. Other County agencies including Stormwater Planning and the Park Authority would have applications for the results of this project. This is a collaborative partnership

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between Stormwater Planning Division, Urban Forest Management Division, and the Northern Virginia Soil and Water Conservation District.

Staff is currently in the contract negotiation process with the University of Maryland for 2019–2021. These funds would be used to support the work of a graduate student over two years at the University of Maryland to collect field data and analyze soil samples. The cost to support the graduate student would be a one-time fee of \$150,000.

FISCAL IMPACT:

Currently, the Forest Pest Program is funded through the Special Service District for the Control of Infestations that May Carry a Disease that is Dangerous to Humans, Gypsy Moth, Fall Cankerworm, and Certain Identified Pests. The total amount budgeted in FY 2019 is sufficient for this program.

ENCLOSED DOCUMENTS:

Attachment I: TREE-äge® Label

Attachment II: IMA-jet® Label

Attachment III: Safari® Label

Attachment IV: CoreTect® Label

Attachment V: United States Forest Service Pest Alert, Spotted Lanternfly

Attachment VI: Gypsy Moth Cumulative Defoliation in Virginia (1984-2009)

Attachment VII: United States Forest Service Pest Alert, Hemlock Woolly Adelgid

Attachment VIII: United States Forest Service Pest Alert, Thousand Cankers Disease

Attachment IX: United States Forest Service Pest Alert, Sudden Oak Death

Attachment X: United States Forest Service Pest Alert, Asian Longhorned Beetle

Attachment XI: United States Forest Service Pest Alert, Beech Bark Disease

Attachment XII: i-Tree ECO Fact Sheet

STAFF:

Rachel O. Flynn, Deputy County Executive

Randolph W. Bartlett, Director, Department of Public Works and Environmental Services (DPWES)

Brian Keightley, Director, Urban Forest Management Division, DPWES

RESTRICTED USE PESTICIDE

DUE TO ACUTE TOXICITY TO HUMANS FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

TREE-äge**GROUP 6 INSECTICIDE**

Injected insecticide for two-year control of listed arthropod pests in deciduous, coniferous, and palm trees

ACTIVE INGREDIENT:Emamectin Benzoate¹.....4.0%**OTHER INGREDIENTS**.....96.0%**TOTAL**.....100.0%CAS No. 55569-91-8 ¹Contains 0.36 lb emamectin per gallon.

EPA Reg. No. 100-1309-74578 Est. 74578-MA-001

**KEEP OUT OF REACH OF CHILDREN
WARNING/AVISO**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use on label in booklet.

SCPPL ABJ 1309A-L1D 0314, Material #4036736

Net Contents: 1 Quart, 2 Fluid Ounces (1 liter)

Product ID: 040-4100

Manufactured for Arborjet, Inc. 99 Blueberry Hill Road, Woburn, MA 01801

PRECAUTIONARY STATEMENTS**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

WARNING/AVISO: Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear. Harmful if swallowed. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

FIRST AID

If in eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If swallowed: Call poison control center or doctor immediately for treatment advice. Have person sip glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN

Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Vomiting within one-half hour of exposure can minimize toxicity following accidental ingestion of the product; rapidly after exposure (< 15 minutes) administer repeatedly medical charcoal in a large quantity of water or ipecac. If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since emamectin benzoate is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic emamectin benzoate exposure.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

HOT LINE NUMBER

For 24-Hour Medical Emergency Assistance (Human or Animal), Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call **1-800-255-3924**

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves (Category C) such as barrier laminate; butyl rubber ≥ 14 mils; nitrile rubber ≥ 14 mils; or neoprene rubber ≥ 14 mils.
- Shoes and socks
- Protective eyewear

ENVIRONMENTAL HAZARDS

This product is highly toxic to fish, mammals and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater. This product is highly toxic to bees exposed to direct treatment or residues on blooming trees.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame.

**CONDITIONS OF SALE AND LIMITATION
OF WARRANTY AND LIABILITY**

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of ARBORJET, Inc. or Seller.

To the extent permitted by applicable law, Buyer and User agree to hold ARBORJET and Seller harmless for any claims relating to such factors.

ARBORJET warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or ARBORJET, and, (2) Buyer and User assume the risk of any such use. TO THE EXTENT PERMITTED BY APPLICABLE LAW, ARBORJET MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall ARBORJET be liable for any incidental, consequential or special damages resulting from the use or handling of this product.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ARBORJET AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ARBORJET OR SELLER, THE REPLACEMENT OF THE PRODUCT.

ARBORJET and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of ARBORJET.

DIRECTIONS FOR USE RESTRICTED USE PESTICIDE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

IMPORTANT: Read entire label before using this product. Failure to follow label instructions may result in poor control or tree injury. Failure to follow label directions may cause injury to people, animals and environment.

APPLICATION TO TREES

TREE-äge is for control of mature and immature arthropod pests of deciduous, coniferous, and palm trees including, but not limited to, those growing in residential and commercial landscapes, parks, plantations, seed orchards, and forested sites (in private, municipal, state, tribal and national areas). TREE-äge contains the active ingredient emamectin benzoate and is formulated to translocate in the tree's vascular system when injected. This product must be placed into active sapwood and will actively control pests for up to two years.

USE DIRECTIONS

TREE-äge is designed for use with tree injection devices that meet the label and dose requirements (for example, the Arborjet Tree Injection Systems) for the control of listed pests of trees. Follow manufacturer's directions for equipment use.

Dosages are based on the Diameter (in inches) of the tree at Breast Height (DBH").

Tree DBH is the outside bark diameter at breast height. Breast height is defined as 4.5 feet (1.37m) above the ground on the uphill side of the tree. For the purposes of determining breast height, the ground includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line.

The diameter is determined by measuring the circumference of the tree at DBH", and dividing the circumference (in inches) by three (3). To determine DBH" for multi-stemmed woody ornamentals, measure the DBH" for each stem or branch and add together for the total DBH" per tree.

Placement of Application/Injection Sites: Inject at the base of the tree. Inject into the stem within 12" of the soil, into the trunk flare or into tree roots exposing them by shallow excavation. Make applications into intact, healthy sapwood. Do not inject into injured areas or areas with decay. Select injection sites associated with stem growth.

Number of Injection Sites: Work around the tree, spacing injection sites approximately every 4 to 8 inches of tree's circumference.

Drill Depth: Drill through the bark then 5/8" to 1-5/8" (hardwoods) or 1-5/8" to 2" (conifers) into the sapwood with the appropriate sized drill bit. Use clean, sharp drill bits. Brad point bits are recommended. Precautions should be taken to avoid diseased areas and transferring infected tissues to other injection sites.

APPLICATION TO TREES (continued)

Resinous Conifers

In resinous conifers, such as pine and spruce, start the injection immediately after drilling into the sapwood. A prolonged delay may reduce uptake on account of resin flow into opening.

WHEN TO TREAT

TREE-äge contains the active ingredient emamectin benzoate which is a glycoside insecticide. It is active against immature and adult stages of arthropods. The primary route of toxicity is through ingestion.

ENVIRONMENTAL CONDITIONS: Uptake of TREE-äge is dependent upon the tree's transpiration. Transpiration is dependent on a number of abiotic and biotic factors, such as soil moisture, soil and ambient temperature, and time of day. For uptake, apply when soil is moist, soil temperatures are above 45°F, ambient temperatures are between 40° to 90°F, and during the 24 hour period when transpiration is greatest, typically before 2:00 PM. Applications to drought or heat-stressed trees may result in injury to tree tissue, poor treatment and subsequent control. Avoid treating trees that are moisture stressed or suffering from herbicide damage.

MONITOR TREE HEALTH AND PEST INFESTATIONS: Effective injection treatment is favored by a full canopy (i.e., leaves) and healthy vascular system. Once these tissues are compromised by arthropod damage (larval galleries, defoliation, leaf mining, etc.) an effective and uniform application of TREE-äge may be difficult to achieve and subsequent control may be poor. Optimally, treatment should be made preventively at least 2 to 3 weeks before arthropods historically infest the host tree. As a result of systemic movement and longevity of TREE-äge in trees, this interval may be extended much earlier to 6 months should tree dormancy, adverse weather, management, asynchronous life cycle of pests, etc., allow earlier application timing.

TREE-äge may also be effective as a remedial treatment against some pests, such as those with slower development or if multiple life stages are susceptible to TREE-äge. Pests that attack the stem and branches such as bark beetles and clearwing borers may disrupt vascular tissue resulting in poor distribution in an infested tree. This includes the initial larval stages of pests, such as bark beetles and clearwing borers, that attack the stem and branches, which may disrupt vascular tissue resulting in poor distribution of the product in an infested tree. Best results are achieved if applications are made prior to any vascular disruption to the tree. However, control may be achieved if larvae come into contact or feed on TREE-äge treated tissues.

GROUP 6 INSECTICIDE

RESISTANCE MANAGEMENT

TREE-äge Insecticide is a Group 6 insecticide (contains the active ingredient emamectin benzoate).

Because of the inherent risks of resistance development to any product, it is strongly advised that TREE-äge be used in a sound resistance management program. Treatment may not be effective against labeled pests if insect or mite tolerant strains develop. When applying to plants that are hosts of labeled pests and these labeled pests have multiple generations per year, use resistance management practices.

USE

Use as formulated or dilute with equivalent 1 to 3 volumes of water to apply.

Tree Diameter (DBH) (Inches)	Low ml product/tree	Medium ml product/tree	High ml product/tree
4 to 6	15	25	50
7 to 9	20	40	80
10 to 12	30	55	110
13 to 15	35	70	140
16 to 18	42	85	170
19 to 21	50	100	200
22 to 24	–	115	230
25 to 27	–	130	260
28 to 30	–	145	290
31 to 33	–	160	320
34 to 36	–	175	350
37 to 39	–	190	380
40 to 42	–	205	410
43 to 45	–	220	440
46 to 48	–	235	470
49 to 51	–	250	500
52 to 54	–	265	530
55 to 57	–	280	560
58 to 60	–	295	590
61 to 63	–	310	620
64 to 66	–	325	650
67 to 69	–	340	680
70 to 72	–	355	710

The use of low, medium, and high rates are based on the professional judgment of the applicator as to what constitutes a low, medium or high infestation.

Higher rates tend to provide longer residual and control of more difficult to control insects. See **Target Pest** for additional information in choosing the amount of product to apply.

Applications in Trees			
Tree Tissue	Target Pest	Application Rate ¹	Comments
Seed and Cone	Pine Coneworm (<i>Dioryctria</i> spp.) Pine Cone Seed Bug (suppression of <i>Leptoglossus</i> and <i>Tetyra</i> spp in the year of treatment)	Medium to High	For optimal control apply in the fall for early season pests or at least 30 days before insect attack.
Bud and Leaf	Tent Caterpillars (including Eastern, Forest, Pacific, and Western) Western Spruce Budworm Winter Moth	Low to Medium	Apply at least 2-3 weeks before the pest has historically been present. Consult with local extension agent for when this will occur in your area.
	Bagworm Fall Webworm Gypsy Moth Mimosa Webworm Oak Worm Tussock Moth Leafminers (including Lepidoptera Coleoptera Hymenoptera) Honeylocust Plant Bug Pine Needle Scale Red Palm Mite Sawfly (including Elm, Pine)	Low to High	
Shoot, Stem, Trunk and Branch	Clearwing Borers (including Ash, and Sequoia Pine Pitch Tube Moth)	Low to Medium	For control apply at least 30 days before historical egg hatch or adult flight and to trees whose vascular tissue is not damaged. If vascular tissue is damaged or plugged by insect galleries, nematodes or fungi, uniform treatment and control may not be achieved.
	Flat-headed Borers (including adult and larvae of Emerald Ash Borer)	Low to High	
	Roundheaded Borers (excluding Asian longhorn Borer)	Medium to High	
	Scolytids (bark beetles) Ips Engraver Beetles Mountain Pine Beetle Southern Pine Beetle Spruce Beetle Western Pine Beetle Pinewood Nematode		

¹Use medium to high rates for remedial and longer residual control.

COMPATIBILITY

Do not mix TREE-äge before injection with other products such as insecticides, fungicides, plant growth regulators, surfactants, adjuvants, and fertilizers.

RESTRICTIONS

Do not apply to trees that may yield food consumed by humans or used in animal feed. TREE-äge is not to be reformulated or repackaged, including custom blended.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage: Store in a cool, dry place, away from children and pets. Keep from freezing.

Pesticide Disposal: Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

TREE-äge is a registered trademark of Arborjet, Inc.

Manufactured for: Arborjet, Inc.
99 Blueberry Hill Road
Woburn, MA 01801

SCPPL ABJ 1309A-L1D 0314, Material #4036736





**Systemic Insecticide
for Micro-Infusion®**

SYSTEMIC INSECTICIDE

Micro-injectable Systemic Insecticide for use with the Arborjet Injection System in the Management of Specific Insect Pests of Forests, Trees, Landscape Ornamentals and Interior Plantscapes.

ACTIVE INGREDIENT:
Imidacloprid 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine.....**5.0%**

OTHER INGREDIENTS.....95.0%

TOTAL.....100.0%

Net Contents: See Individual Container EPA Reg No. 74578-I • EPA Est. No. 74578 - MA-001

**KEEP OUT OF REACH OF CHILDREN
CAUTION!**

STOP - READ THE ENTIRE LABEL BEFORE USE

Precaución al usuario: Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente. To the user: If you cannot read or understand English, do not use this product until the label has been fully explained to you.

Manufactured by: ARBORJET INC.: 781-935-9070 99 Blueberry Hill Road, Woburn, MA 01801

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS:

CAUTION: Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

Personal Protective Equipment (PPE):

Wear long-sleeved shirt and long pants, socks, shoes, and chemical resistant gloves. Remove and wash contaminated clothing before reuse.

FIRST AID

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or a doctor for further treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or a doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor; or going for treatment. You may also contact the Infotrac Chemical Emergency Response System at **1-800-535-5053**.

Note to Physician: No specific antidote is available. Treat the patient symptomatically.

ENVIRONMENTAL HAZARDS:

This pesticide is highly toxic to fish and aquatic invertebrates. Do not apply directly to water; to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. This product is highly toxic to honeybees exposed to direct treatment or residues on blooming trees and shrubs.

PHYSICAL OR CHEMICAL HAZARDS:

Do not use or store near heat or open flame. Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

IMPORTANT: Read the entire label before use. Failure to follow label directions may result in poor control or plant injury. Failure to follow label directions may cause injury to people, animals and environment.

Do not apply this product, by any application method, to linden, basswood or other Tilia species in the State of Oregon.

APPLICATION TO TREES AND ORNAMENTALS

IMA-jet is a systemic insecticide used to control a variety of insect pests of ornamental or forest trees. Pests controlled include aphids, whiteflies, soft scales, adelgids, gall forming wasps, leafhoppers, lace bugs, mealybugs, psyllids, serpentine leafminers, sawflies, thrips and leaf feeding beetles. Use IMA-jet as directed in trees in residential, business and commercial areas, golf courses, airports, cemeteries, parks, street trees, playgrounds, athletic fields, commercial forestry production, seed orchard trees, nurseries, and in private, municipal, state, federal, county and local recreational forests.

WHEN TO TREAT: For optimum results, apply IMA-jet prior to infestation. Also apply when insects are infesting and feeding upon the tree. IMA-jet insecticide moves upward into the tree's canopy from the application sites. Systemic activity occurs only after the active ingredient is translocated upward in the tree. This product must be applied below the bark into the sapwood (i.e., the vascular) tissues.

In the case of severe infestation, use the highest label rate for the targeted pest. In trees larger than 24" use the highest rate listed for that insect pest. Dosages are designed for insect control and retreatment is generally not necessary during the year after initial treatment. Monitor insect activity to establish a damage threshold for retreatment. Repeat applications as necessary.

The need for an application can be based on historical monitoring of the site, previous records or experiences, current season adult trapping and other methods. Due to potential foliar injury or poor (i.e. slow) uptake, do not apply to trees stressed by drought or extreme heat.

BASIC INJECTION PROCEDURE: This product must be placed into the tree's sapwood, the conductive tissue that moves water to the canopy. Make applications around the base of the tree. Inject into tree roots exposing them by careful excavation or; alternatively into the trunk flare or tissue immediately above the trunk flare, locating the injection site in the first few xylem (i.e., sapwood) elements. Drill holes through the bark and into the sapwood a minimum of 3/8" deep. When using the Arborjet Arborplug, drill a minimum of 5/8" deep into the sapwood.

CALCULATING APPLICATION RATE: The dosages and number of application sites are based on tree diameter:

To determine the application/dose rate per tree:

- 1) Measure the tree diameter in inches at chest height (54" from ground) to find the Diameter at Breast Height (DBH). (If measuring tree circumference, divide circumference by 3 to obtain the DBH in inches.)
- 2) Calculate the number of injection sites by dividing the DBH in inches by 2.
- 3) Multiply the tree DBH by the dosage rate (see table below for appropriate dosage rate) to calculate the total dose in milliliters per tree.
- 4) Divide the total dose by the number of injection sites to determine required dosage per injection site.

Example: For a tree with a DBH of 12 inches (or circumference of 36 inches) and 8 mL dosage rate:

- 1) DBH = 12" (circumference 36" ÷ 3 = 12")
- 2) Divide DBH of 12" by 2 = 6 injection sites.
- 3) Multiply DBH of 12" by 8 mL = 96 mL total dose per tree.
- 4) Divide 96 mL by 6 injection sites = 16 mL per injection site to deliver the required dosage.

To apply the highest dosage rate to trees as specified in the table, "Applications for Use in Listed Trees and Ornamentals and Forest and Woodlands Areas," it may be necessary to increase the number of injection sites applied. In the example given in "Calculating Application Rate," if the total dose per tree applied is less than the calculated 96 mLs, the remaining dosage should be placed into a new injection site. Do not place injection sites closer than 2" apart. Treat Cycads (i.e. gymnosperms) using this method of application. In resinous conifers (such as pine and spruce), start the injection immediately after drilling. A prolonged delay may reduce uptake on account of resin flow. In palms (i.e., monocots), only one injection site is required: locate the application site 1-3' from the soil level and drill 4" deep into the stem.

APPLICATION EQUIPMENT: IMA-jet is designed for use with the Arborjet Tree Injection Systems or with other tree injection devices that meet the label requirements and are chemically resistant. For all injection systems, read carefully and follow manufacturer's directions for use.

APPLICATIONS FOR USE IN LISTED TREES AND ORNAMENTALS AND FOREST AND WOODLAND AREAS

(For flowering trees, make applications post bloom)

For trees less than 12" in diameter, use the lower rate for the targeted pest. If trees are severely infested, use the highest label rate specified for control of the targeted pest. For trees larger than 24" diameter, always use the highest label rate for the targeted pest.

CROP	PEST	DOSAGE
Trees & Ornamentals: Trees, Shrubs, Evergreens, Interior Plantscapes, Palms Forest areas: Non-urban Forests, Tree Plantations, Planted Christmas Trees, Parks, Rural Shelter Belts, Rangeland Trees and Woodland Trees including Conifers	Adelgids (including Hemlock Woolly Adelgid*), Aphids, Gall Wasps (including Erythrina Gall Wasp), Lacebugs, Leafhoppers, Leaf miners, Mealybugs, Psyllids, Soft scales, Thrips, Whiteflies	2.0 – 4.0 mL IMA-jet Systemic Insecticide per inch of cumulative trunk diameter at breast height (54" from the ground). Space injection holes approximately 6" apart, around the circumference of the tree.
Trees & Ornamentals: Trees, Shrubs, Evergreens, Interior Plantscapes, Palms Forest areas: Non-urban Forests, Trees Plantations, Planted Christmas Trees, Parks, Rural Shelter Belts, Rangeland Trees and Woodland Trees including Conifers	Adelgids (including Hemlock Woolly Adelgid*), Gall Wasps (including Erythrina Gall Wasp), Flatheaded Borers (including Bronze birch borer, Emerald ash borer) adults, Japanese Beetles (adults), Leaf Beetles (including elm leaf beetle), Leaf bugs (including leaf footed seed bugs), Leaf miners, Pine tip moth larvae, Roundheaded Borers (including Eucalyptus longhorned borer), Royal palm bug, Sawfly larvae, Soft scales, Thrips, Whiteflies	4.0 – 8.0 mL IMA-jet Systemic Insecticide per inch of cumulative trunk diameter at breast height (54" from the ground). Space injection holes approximately 6" apart, around the circumference of the tree.

*IMA-jet provides 1-2 years of residual control of Hemlock Woolly Adelgid. Trees infested with Hemlock Woolly Adelgid might require two applications before significant control is seen.

FOR USE UNDER USDA SUPERVISION ONLY

HOST TREES	PEST	DBH RANGE	DOSE RATE mL/DBH"
Elm, Maple, Birch, Willow, Box elder, Horse Chestnut, Buckeye, European Mountain Ash, Ash, Poplar, Albizia, London Plane, Hackberry and Sycamore	Asian Longhorned Beetle	2 - 23" 24" +	4.0 mL 8.0 mL

RESTRICTIONS

- Use as formulated. Do not mix with water.
- Keep children and pets away from treatment area until injection and uptake are complete.
- This product is not to be used on trees that will produce food within the year following treatment.
- Do not use on syrup-producing sugar maples where sap is harvested.

ARBORJET MICRO-INFUSION® PROCEDURES

Basic Arborjet Micro-Infusion® Procedures:

1. Determine the dosage based on target pest and tree diameter.
2. Pour concentrate into the medicament bottle and cap.
3. **For Tree I.V.:** pressurize the contents from 25 to 60 PSI and prime the lines by opening each injector valve slowly to purge the air; close the valve when liquid begins to flow, or **For Hydraulic Device:** pressurize the contents to 15 PSI and prime the lines by depressing the trigger and pulling back slowly on the dose-sizer.
4. Determine the number and placement of injection sites around the base of the tree. Drill through the bark then 5/8" into the sapwood using the appropriate sized drill bit. For best results, use clean and sharp Brad point drill bits.
5. Insert the Arborplug™ using the set tool and mallet. Use the #4 Arborplug (3/8" d) for most applications, including conifers. In hardwoods, you may also use smaller diameter Arborplugs including the #3 (9/32" d). Insert the VIPER needle into the Arborplug. To start the Tree I.V. infusion, open the needle valve. Close the valve and remove the VIPER needle upon completion of infusion. To inject with the Hydraulic Device, depress the trigger to apply the dose.

Alternative Arborjet STINGER Procedure:

6. Alternatively, insert the #2 (7/32" drill bit) STINGER injector tip 5/8" deep into the sapwood in the predrilled hole with a hand push or by gently tapping the injector tip into the sapwood with a mallet. Remove STINGERS upon completion of infusion process by pulling and twisting out counter-clockwise. Use a cleaner or an EPA registered disinfectant between trees when using the reusable STINGER tips.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store bottles in a cool, dry place above 45° F. Store in original container out of reach of children, preferably in a locked storage area.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available, or puncture and dispose of empty bottle in a sanitary landfill.

NOTICE OF WARRANTY

ARBORJET, Inc. makes no warranty of fitness of this product for any other purpose, beyond its uses under normal conditions in keeping with the statements made on this label. The buyer accepts and understands that failure to follow label directions is the responsibility of the buyer.



Micro-Infusion® is a registered trademark of Arborjet, Inc.

REV 7/2017

GROUP	4A	INSECTICIDE
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Safari®

20 SG INSECTICIDE



**FOR FOLIAR AND SYSTEMIC INSECT CONTROL
IN ORNAMENTAL PLANTS AND VEGETABLE
TRANSPLANTS IN ENCLOSED STRUCTURES.
FOR GREENHOUSE, NURSERY, INTERIOR PLANT-
SCAPE AND OUTDOOR LANDSCAPE USE ONLY**

Active Ingredient:

Dinotefuran, [N-methyl-N'-nitro-N''-
((tetrahydro-3-furanyl)methyl)guanidine] 20%

Other Ingredients 80%
Total: 100%

EPA Reg. No. 86203-11-59639

EPA Est. 67545-AZ-01

KEEP OUT OF REACH OF CHILDREN CAUTION

**SEE BELOW FOR ADDITIONAL
PRECAUTIONARY STATEMENTS.**

FIRST AID

If on skin or clothing: Take off contaminated clothing.
Rinse skin immediately with plenty of
water for 15-20 minutes.
Call a poison control center or doctor
for further treatment advice.

If swallowed: Call poison control center or doctor
immediately for treatment advice.
Do not induce vomiting unless told to do
so by the poison control center or doctor.
Have person sip a glass of water if
able to swallow.
Do not give anything by mouth to an
unconscious person.

If in eyes: Hold eye open and rinse slowly and
gently with water for 15-20 minutes.
Remove contact lenses, if present,
after the first 5 minutes, then contin-
ue rinsing eye.
Call a poison control center or doctor
for further treatment advice.

(continued)

FIRST AID (continued)

If inhaled: Move person to fresh air.
If person is not breathing, call 911 or
an ambulance, then give artificial res-
piration, preferably mouth-to-mouth, if
possible.
Call poison control center or doctor for
further treatment advice.

HOT LINE NUMBER

Have the product container or label with you when
calling a poison control center or doctor or going
for treatment. You may also contact **800-892-0099**
for emergency medical treatment information.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed or absorbed through skin. Avoid
contact with eyes, skin or clothing. Wash thoroughly
with soap and water after handling and before eat-
ing, drinking, chewing gum, using tobacco or using
the toilet. Causes moderate eye irritation. Remove
and wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

USER SAFETY REQUIREMENTS

Follow manufacturer's instructions for cleaning/
maintaining PPE. If no such instructions exist for
washables, use detergent and hot water. Keep and
wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS**Users should:**

- Wash hands with soap and water before eating,
drinking, chewing gum, using tobacco or using
the toilet.
- Remove clothing immediately if pesticide gets
inside. Then wash thoroughly and put on clean
clothing.
- Remove PPE immediately after handling this
product. Wash the outside of gloves before
removing. As soon as possible, wash thoroughly
and change into clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to aquatic invertebrates. Do
not apply directly to water, or to areas where sur-
face water is present or to intertidal areas below the
mean high water mark. Do not apply when weath-
er conditions favor drift from treated areas. Drift
and runoff from treated areas may be hazardous
to aquatic organisms in water adjacent to treated
areas. Do not dispose of equipment washwaters or
rinse into a natural drain or water body.

This product is toxic to honey bees. The persistence
of residues and potential residual toxicity of dinote-
furan in nectar and pollen suggests the possibility of

chronic toxic risk to honey bee larvae and the eventual instability of the hive.

- This product is toxic to bees exposed to residues for more than 38 hours following treatment.
- Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state or federal authorities.

Dinotefuran and its degradate, MNG, have the properties and characteristics associated with chemicals detected in groundwater. The high water solubility of dinotefuran, and its degradate, MNG, coupled with its very high mobility, and resistance to biodegradation indicates that this compound has a strong potential to leach to the subsurface under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

SPRAY DRIFT ADVISORY

Do not apply under conditions involving possible drift to food, forage or other plantings that might be damaged or the crop thereof rendered for sale, use or consumption.



PROTECTION OF POLLINATORS

APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.



Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications.
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

(continued)

PROTECTION OF POLLINATORS (continued)

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product onto beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at: <http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx>.

Pesticide incidents (for example, bee kills) should immediately be reported to the State/Tribal lead agency. For contact information for your State, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

FOR COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS



- Do not apply this product while bees are foraging.
- This product is toxic to bees exposed to residue for more than 38 hours following treatment.
- Do not apply this product to blooming, pollen-shedding or nectar-producing parts of plants if bees may forage on the plants during this time period, unless the application is made in response to a public health emergency declared by appropriate state or federal authorities.



Do not apply Safari® 20 SG Insecticide while bees are foraging. Do not apply Safari 20 SG Insecticide to plants that are flowering. Only apply after all flower petals have fallen off.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, greenhouses and handlers of agricultural insecticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

EXCEPTION: If product is drenched or soil-injected, workers may enter the area at any time if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is:

- Coveralls
- Shoes plus socks
- Chemical-resistant gloves (made of waterproof material)

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not allow others to enter treated areas until sprays have dried.

CONDITIONS OF SALE

Valent U.S.A. Corporation warrants that this product in its unopened package conforms to the chemical description on the label and is reasonably fit for the purposes set forth on the label when used according to directions under normal use conditions to the crops specified. To the extent consistent with applicable law, there are no other warranties, expressed or implied, concerning the use of this product other than indicated on the label. To the extent consistent with applicable law, this warranty does not extend to the handling or use of this product contrary to label instructions or under abnormal conditions or conditions not reasonably foreseeable to seller, and buyer assumes all risk of any such use.

APPLICATION INFORMATION

- Applications of *Safari* 20 SG Insecticide in residential areas may be made by commercially licensed applicators.

Application to Ornamental Plants:

- *Safari* 20 SG Insecticide can be applied as a foliar spray, a broadcast spray, a soil drench, soil injection and via chemigation for insect control in ornamental plants in greenhouses, nurseries, outdoor landscapes and interior plantscapes.
- *Safari* 20 SG Insecticide is a systemic product and will be taken up by the root system and translocated upward throughout the plant. When applied as a foliar spray, the product offers translaminar and locally systemic control of foliar pests.
- When applied to the soil, *Safari* 20 SG Insecticide will be translocated more quickly in herbaceous plants than in woody shrubs and trees. Speed of insect control will range from as little as one day for small herbaceous plants in containers, to several weeks in large trees growing in the landscape.
- Do not apply more than a total of 2.7 lbs of product (0.54 lb active ingredient) per acre per year for all application types.
- **Do not apply this product, by any application method, to linden, basswood or other *Tilia* species.**

Application to Vegetable Transplants:

- *Safari* 20 SG Insecticide can be applied as a foliar spray or a broadcast spray for insect control in vegetable transplants.
- Do not apply more than 1.34 lbs (0.268 lbs ai) per acre of nursery per year.

MIXING INSTRUCTIONS:

Safari 20 SG Insecticide Alone: Add half of the required amount of water to the mix tank. With the agitator running, add the desired amount of *Safari* 20 SG Insecticide to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after *Safari* 20 SG Insecticide has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

Safari 20 SG Insecticide + Tank Mixtures: Add half of the required amount of water to the mix tank. Start the agitator running before adding any tank mix partners. In general, add tank mix partners in this order: products packaged in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, emulsifiable concentrates, and surfactants/adjuvants. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

NOTE: When using *Safari* 20 SG Insecticide in tank mixtures, add all products in water-soluble packaging to the tank before any other tank mix partner, including *Safari* 20 SG Insecticide. Allow the water-soluble packaging to completely dissolve and the product(s) to completely disperse before adding any other tank mix partner to the tank.

If using *Safari* 20 SG Insecticide in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix product label. Do not exceed

label dosage rate, and follow the most restrictive label precautions and limitations. Do not mix this product with any product that prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

Compatibility

IMPORTANT: The safety of all potential tank mixes has not been tested on all crops. Before applying any tank mixture not specifically listed on this label, confirm the safety to the target crop.

Safari 20 SG Insecticide is compatible with most commonly used pesticides, crop oils, adjuvants, and nutritional sprays. However, since it is not possible to test all possible mixtures, pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixtures with *Safari* 20 SG Insecticide. To determine the physical compatibility of *Safari* 20 SG Insecticide with other products, use a jar test, as described below:

Using a quart jar, add the proportionate amounts of the products to 1 quart of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for additional required ingredients to the spray tank.

RESISTANCE MANAGEMENT

Safari 20 SG Insecticide contains a Group 4A insecticide. Insect biotypes with acquired resistance to Group 4A may eventually dominate the insect population if Group 4A insecticides are used repeatedly in the same crop or in successive years as the primary method of control for a targeted species. This may result in partial or total loss of control of those species by *Safari* 20 SG Insecticide or other Group 4A insecticides.

To delay the development of insecticide resistance in greenhouse, nursery and interiorscape use sites, strongly consider the following guidelines:

- Do not apply *Safari* 20 SG Insecticide or other Group 4A insecticides to consecutive generations of the same insect pest species.
- Do not drench soil media with *Safari* 20 SG Insecticide or other Group 4A insecticides more than one time per crop cycle or three months, whichever is shorter.
- Do not make more than two foliar or broadcast sprays of *Safari* 20 SG Insecticide or other Group 4A insecticides to a single crop during a two-month period.
- Do not make more than one soil drench and one foliar or broadcast spray with *Safari* 20 SG Insecticide or other Group 4A insecticides during a two-month period.

(continued)

RESISTANCE MANAGEMENT (continued)

- Base insecticide use on a comprehensive IPM program.
- Monitor treated insect populations for loss of field efficacy.
- Contact your local extension specialist, certified crop advisors, and/or manufacturers for insecticide resistance management and/or IPM guidelines for the specific site and resistant pest problems.
- For further information or to report suspected resistance, you may contact Valent U.S.A. Corporation, at toll free number: 1-800-898-2536.

APPLICATION PROCEDURES AND SPRAY EQUIPMENT

Ground Application: Select spray nozzles that will provide accurate and uniform spray deposition. Use spray nozzles that provide medium-sized droplets and reduce drift. To help insure accuracy, calibrate sprayer before each use. For information on spray equipment and calibration, consult nozzle manufacturers and/or State Extension Service specialists.

Apply *Safari* 20 SG Insecticide using sufficient water volume to provide thorough and uniform coverage. In situations where a dense canopy exists and/or pest pressure is high, use greater water volumes. The use of a spray adjuvant may improve spray coverage. Do not apply under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Applications to ornamental plants, and vegetable transplants: *Safari* 20 SG Insecticide can be applied using many different types of application equipment. Apply in sufficient water to ensure good coverage of ornamental plants. Tank mixing with a surfactant will produce better coverage when making applications to plants with hard to wet foliage such as holly or pine. If concentrate or mist type spray equipment is used, apply the same amount of product on the sprayed area as would be used in a dilute solution. To assure optimum effectiveness, the product must be placed where the growing portion of the target plant can absorb the active ingredient. Applications can be made to foliage or as a soil drench.

RESTRICTIONS

- With the exception of non-livestock animals, do not graze treated areas or use clippings from treated areas for feed or forage.
- Prevent runoff or puddling of irrigation water following application.
- Keep children and pets off treated areas until spray has dried.
- Do not apply to areas that are water logged or saturated, or frozen, which will not allow penetration into the root zone of the plant.

APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION):

Safari 20 SG Insecticide may be applied by injection into an irrigation system, either alone or in combina-

tion with other pesticides or chemicals that are registered for application through irrigation systems. Dilution ratios are normally 1:100 to 1:200, depending on the system. Apply this product only through microirrigation (individual spaghetti tube), drip irrigation, overhead irrigation, or motorized calibrated irrigation equipment (Ornamentals). Do not apply through any other type of irrigation system. Lack of effectiveness can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make adjustments when necessary.

Using Water from Public Water Systems:

DO NOT APPLY SAFARI 20 SG INSECTICIDE THROUGH ANY IRRIGATION SYSTEM PHYSICALLY CONNECTED TO A PUBLIC WATER SYSTEM.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year. *Safari 20 SG Insecticide* may be applied through irrigation systems which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements:

Operating Instructions for Irrigation Systems:

1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.
2. The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
6. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
7. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
8. Do not apply when wind speed favors drift beyond the area intended.

Calibration and Application Instructions:

Apply *Safari 20 SG Insecticide* under the schedule specified in the specific use instructions, not according to the irrigation schedule unless the events coincide. In general, set the equipment to apply the minimum amount of water per acre. Run the system at 86 - 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Check with State and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

MINIMIZING SPRAY DRIFT

As with all crop protection products, it is important to minimize off-target movement. Do not allow spray to drift onto adjacent land, crops, or aquatic areas. To minimize spray drift:

1. Make applications when wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 10 mph. Do not apply when wind gusts approach 10 mph.
2. Risk of exposure to sensitive aquatic areas can be reduced by not applying when wind direction is toward the aquatic area.
3. Do not cultivate or plant crops within 25 feet of the aquatic area as to allow growth of a vegetative filter strip.
4. Do not make applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with increased height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.
5. Use the largest droplet size consistent with good pest control. Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by not using excessive spray boom pressure.

6. Apply as close to target plants as practical to obtain a good spray pattern for adequate coverage. Do not apply more than 10 ft above the crop canopy.
7. For aerial applications, mount spray boom on the aircraft so as to minimize drift caused by wing tip vortices. Use minimum practical boom length and do not use boom that exceeds 75% of wing span or rotor diameter.

Air Assisted (Air Blast) Tree and Vine Sprayers (Ornamentals Only):

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or

laterally directed air stream. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

1. Adjust deflectors and aiming devices so that spray is only directed into the canopy.
2. Block off upward pointed nozzles when there is no overhanging canopy.
3. Use only enough air volume to penetrate the canopy and provide good coverage. Use a minimum of 50 gallons finished spray per acre.
4. Do not allow spray to go beyond the edge of the cultivated area. Spray the outside row only from outside the planting.

**VEGETABLE TRANSPLANTS (IN ENCLOSED STRUCTURES)
FOLIAR OR BROADCAST SPRAY APPLICATION**

For foliar insect control on vegetable transplants grown in enclosed structures.

Crop	Pest	Product Rate (By Weight)	Remarks
Cucurbits (Transplants only) Cantaloupe Cucumber Melons Squash Fruiting Vegetables Eggplant Peppers Tomato Head and Stem Brassica Broccoli Brussels Sprouts Cabbage Cauliflower Kohlrabi	Aphids Leafminers Mealybugs Thrips (suppression) Whiteflies including: Silverleaf/ Sweetpotato (B and Q Biotypes)	3.5 - 7.0 oz per 100 gal 7 - 14 oz per Acre 0.16 - 0.32 oz per 1,000 sq ft (0.09 to 0.18 lbs ai per Acre)	Do not make more than one application per crop. Apply only to cucurbits and brassica being grown as transplants and before transplants are sold. 100 gals of spray mix will treat 20,000 sq ft of area when using a typical high volume sprayer. If using a low volume sprayer, adjust concentration to apply the same amount of product per unit area.
Leafy Vegetables (Transplants only) (Excluding <i>Brassica</i> spp.)	Aphids Leafminers Mealybugs Thrips (suppression) Whiteflies including: Silverleaf/ Sweetpotato (B and Q Biotypes)	3.5 - 5.5 oz per 100 gal 7 - 11 oz per Acre 0.16 - 0.25 oz per 1,000 sq ft (0.09 to 0.134 lbs ai per Acre)	Do not make more than one application per crop. Apply only to leafy vegetables being grown as transplants and before transplants are sold. 100 gals of spray mix will treat 20,000 sq ft of area when using a typical high volume sprayer. If using a low volume sprayer, adjust concentration to apply the same amount of product per unit area.
<p>One (1) level teaspoon contains 2.4 grams and 1 cup (8 fl oz) contains 4.0 oz by weight of <i>Safari</i> 20 SG Insecticide.</p> <p>Begin applications when first pest activity is noticed or when insects reach threshold levels per University/Extension recommendations. Time application before a damaging population becomes established.</p> <p>Restriction: Do not apply more than 1.34 lbs (0.268 lbs ai) per acre of nursery per year.</p> <p>To delay the development of resistance: Do not apply <i>Safari</i> 20 SG Insecticide or other Group 4A insecticides to consecutive generations of the same insect species without switching to a different mode of action. Do not make more than two sprays of <i>Safari</i> 20 SG Insecticide or other Group 4A insecticides to a single crop. Refer to "Resistance Management" section of label for further guidelines.</p>			

ORNAMENTAL PLANTS – FOLIAR OR BROADCAST SPRAY APPLICATION – OUTDOOR



For foliar insect control on ornamental plants in nurseries and outdoor landscapes (commercial, industrial, recreational and residential).

Crop	Pest	Product Rate	Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines	Adelgids including: Hemlock Woolly Aphids (suppression) Japanese Beetles (adults) Lacebugs including: Azalea, Hawthorne Leaf Beetles, Viburnum Leafhoppers including: Glassy-Winged Sharpshooter, Potato Leafminers including: Serpentine Mealybugs including: Citrus, Long-Tailed, Madeira, Obscure, Pink Hibiscus Psyllids including: Asian Citrus Root Weevils (adults) including: Black Vine, Diaprepes Scale (Armored and Soft) including: Cryptomeria, Cycad Aulacaspis, Elongate Hemlock, Euonymus, Florida Red, Florida Wax, Tea Thrips including: Chilli (suppression) Whiteflies including: Giant, Greenhouse, Silverleaf/ Sweetpotato (B and Q Biotypes)	Foliar Spray 1/4 to 1/2 lb per 100 gallons (4 to 8 oz per 100 gallons) (0.05 to 0.1 lbs ai per 100 gallons) 8 - 16 oz per Acre (0.1 to 0.2 lbs ai/A) 0.2 - 0.4 oz per 1,000 sq ft For treatment of small areas: 1/2 - 1.0 tsp per gallon	Make first application just before pest populations reach an economic threshold. If necessary, make a second application after 14 - 21 days. Tank mixing with a surfactant may improve control of pests such as whitefly, mealybug and scale. Confirm plant safety of tank mix in small area before using on a commercial scale. 100 gals of spray mix will treat 20,000 sq ft of area when using a typical high volume sprayer. If using a low volume sprayer, adjust concentration to apply the same amount of product per unit area.

One (1) level teaspoon contains 2.4 grams and 1 cup (8 fl oz) contains 4.0 oz by weight of *Safari* 20 SG Insecticide.

Make first application just before pest populations reach an economic threshold. If necessary, make a second application after 14-21 days.

Restrictions:

Not for use on house plants grown inside private residences.

Do not apply more than 2.7 lbs (0.54 lbs ai) per acre of nursery or landscape per year.

To delay the development of resistance: Do not apply *Safari* 20 SG Insecticide or other Group 4A insecticides to consecutive generations of the same insect species without switching to a different mode of action. Do not make more than two sprays of *Safari* 20 SG Insecticide or other Group 4A insecticides to a single crop. Refer to "Resistance Management" section of label for further guidelines.

ORNAMENTAL PLANTS – FOLIAR OR BROADCAST SPRAY APPLICATION – INDOOR

For foliar insect control on ornamental plants in greenhouses, interior plantscapes, lath and shadehouses.

Crop	Pest	Product Rate	Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines	Adelgids including: Hemlock Woolly Aphids (suppression) Japanese Beetles (adults) Lacebugs including: Azalea, Hawthorne Leaf Beetles, Viburnum Leafhoppers including: Glassy-Winged Sharpshooter, Potato Leafminers including: Serpentine Mealybugs including: Citrus, Long-Tailed, Madeira, Obscure, Pink Hibiscus Psyllids including: Asian Citrus Root Weevils (adults) including: Black Vine, Diaprepes Scale (Armored and Soft) including: Cryptomeria, Cycad Aulacaspis, Elongate Hemlock, Euonymus, Florida Red, Florida Wax, Tea Thrips including: Chilli (suppression) Whiteflies including: Giant, Greenhouse, Silverleaf /Sweetpotato (B and Q Biotypes)	Foliar Spray 1/4 to 1/2 lb per 100 gallons (4 to 8 oz per 100 gallons) (0.05 to 0.1 lbs ai per 100 gallons) 8 - 16 oz per Acre (0.1 to 0.2 lbs ai/A) 0.2 - 0.4 oz per 1,000 sq ft For treatment of small areas: 1/2 - 1.0 tsp per gallon	Make first application just before pest populations reach an economic threshold. If necessary, make a second application after 14 - 21 days. Tank mixing with a surfactant may improve control of pests such as whitefly, mealybug and scale. Confirm plant safety of tank mix in small area before using on a commercial scale. 100 gals of spray mix will treat 20,000 sq ft of area when using a typical high volume sprayer. If using a low volume sprayer, adjust concentration to apply the same amount of product per unit area.

One (1) level teaspoon contains 2.4 grams and 1 cup (8 fl oz) contains 4.0 oz by weight of *Safari* 20 SG Insecticide.

Make first application just before pest populations reach an economic threshold. If necessary, make a second application after 14 - 21 days.

Restrictions:

Not for use on house plants grown inside private residences.

Do not apply more than 2.7 lbs (0.54 lbs ai) per acre of nursery or landscape per year.

To delay the development of resistance: Do not apply *Safari* 20 SG Insecticide or other Group 4A insecticides to consecutive generations of the same insect species without switching to a different mode of action. Do not make more than two sprays of *Safari* 20 SG Insecticide or other Group 4A insecticides to a single crop. Refer to "Resistance Management" section of label for further guidelines.

ORNAMENTAL PLANTS – PESTS CONTROLLED BY SAFARI/20 SG INSECTICIDE WHEN APPLIED TO THE SOIL

Adelgids including: Hemlock Woolly	Leafminers including: Boxwood	Scales (Armored and Soft) including: Azalea Bark	Thrips including: Chilli (suppression)
Aphids including: Crepe Myrtle	Serpentine	Calico	Gynaikothrips uzeli (suppression)
Green Peach	Mealybugs	Cottony Cushion	Western Flower (suppression)
Melon	Citrus	Cottony Maple	Whiteflies including: Ficus
Bagworms	Longtailed	Cryptomeria	Giant
Flatheaded Borers including: Alder	Madeira	Cycad Aulacaspis	Greenhouse
Emerald Ash	Obscure	Duplachionaspis	Silverleaf/Sweetpotato (B and Q Biotypes)
Flatheaded Appletree	Pink Hibiscus	Elongate Hemlock	White Grubs including: Oriental Beetle
Fungus Gnats (larvae)	Root	Euonymus	
Lacebugs including: Azalea	Psyllids including: Asian Citrus	False Oleander	
Hawthorne	Root Weevils (larvae and adults) including: Black Vine	Fig (Ficus) Wax	
Leaf Beetles including: Viburnum	Diaprepes	Fletcher	
Leafhoppers including: Glassy-Winged	Roundheaded Borers (excluding Asian Longhorned)	Florida Red	
Sharpshooter		Florida Wax	
Potato		Lecanium	
		Oystershell	
		Poplar (Aspen)	
		Pine Needle	
		Tea	
		Tuliptree	

ORNAMENTAL PLANTS – APPLICATION TO SOIL: For systemic insect control on containerized and field grown (in-ground) ornamental plants in nurseries, greenhouses, interior plantscapes, lath and shadehouses, and outdoor landscapes (commercial, industrial, recreational and residential), when applied via soil drench, soil injection, micro-irrigation (spaghetti tube or emitter), drip irrigation, overhead irrigation, ebb and flood irrigation equipment or motorized irrigation equipment.

Crop	Product Rate (By Weight)		Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines	Containerized Plants Soil Media Drench 3/4 to 1-1/2 pounds per 100 gallons 12 to 24 ounces per 100 gallons 1.5 - 3.0 teaspoons per gallon		Only apply to moist soil media. Do not apply to dry or saturated media. Do not apply media drench until roots from transplanted plugs or liners have extended at least half way to the edge of pots. Do not leach treated soil media for at least 7 days after application or performance may be reduced. Heavy rainfall or excessive irrigation following application may decrease performance. Higher rates will be needed to control insects on woody plants than on herbaceous plants.
	Media Drench Volume for Individual Pots		Poinsettia: For optimal control of whiteflies, treat plants 1 - 3 weeks after pinch. Late season drenches will take longer to provide effective control.
	Pot diameter (inches)	Fl oz of dilute solution per pot	
	4	2	
	5	3	
	6	4	
	7	5	
	8	6	
	For larger pot volumes, apply 3 - 4 fl oz of dilute solution (0.11 to 0.22 g product per 4 fl oz water) per gallon of potting media. Use a drench volume that is sufficient to wet soil media without resulting in overflow or runoff through drain holes in pot.		
	Containerized Plants Media Drench Volume for Plants in Raised Beds, Benches, Bedding Flats, Plug and Liner Trays: Apply sufficient dilute solution to wet soil media without loss of liquid from bottom of bed or liner.		

(continued)

ORNAMENTAL PLANTS – APPLICATION TO SOIL (continued)

Crop	Product Rate (By Weight)		Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines	Containerized Plants Ebb and Flood Irrigation		Bring several pots to field capacity, let soil dry and then measure amount of water required to bring pots back to field capacity. Multiply the average volume of water required to rehydrate one pot by the number of pots to be treated. Add this volume of water to the minimum amount of water needed to flood the area to be treated. Re-use any returned volume in subsequent irrigation of same plants. For pot diameter greater than 8", use 3.7 - 7.5 ounces of <i>Safari</i> 20 SG Insecticide per 1,000 gallons of potting soil media.
	Pot diameter (inches)	Ounces per 1,000 pots	
	4	1.9 - 3.7	
	5	2.8 - 5.6	
	6	3.7 - 7.5	
	7	4.7 - 9.3	Use typical injection ratio for injectors (e.g. 1:100, which equals 1 part injector tank solution: 100 parts irrigation water). Do not mix more than 24 oz of <i>Safari</i> 20 SG Insecticide per gallon of injector tank water, or some product may settle out of solution. Calibrate irrigation system to deliver 3 - 4 fl oz of dilute solution per gallon of potting media.
	8	5.6 - 11.2	
	Chemigation of individual containers using a micro-irrigation system (spaghetti tube)		
	Injection Ratio	Ounces per gallon of injector tank water	
	1:100	12 - 24	

(continued)

ORNAMENTAL PLANTS – APPLICATION TO SOIL (continued)

Crop	Product Rate (By Weight)	Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines	Field Grown (In-Ground) Shrubs 3 - 6 grams (1.25 - 2.5 level teaspoons) per foot of height 1.0 - 2.1 ounces per 10 feet of height	<p>When applied to the soil, <i>Safari 20 SG</i> Insecticide is taken up by actively growing trees and shrubs. Speed of control will be dependent on plant size, plant health, environmental conditions and how actively pests are feeding. In actively growing plants, control may be evident within 1 - 3 weeks after application depending on plant size. Time applications to coincide with when most vulnerable pest life stage is present on plants. Control may be less effective when applied to dry, saturated, or frozen soil, or at times when plants are not actively taking up water from soil.</p> <p>If possible, irrigate dry soils 1 - 3 days before application, or apply irrigation within 3 days after application.</p> <p>Heavy rainfall or inadequate irrigation immediately following application may decrease performance.</p> <p>Use higher labeled rates for broadleaf evergreens with dense foliage (ex. hollies), and with very large trees.</p> <p>Soil Drench: Mix required dose in water and uniformly apply to soil around base of shrub or tree. Pull back mulch before drenching. Apply 1 - 4 pints of drench solution per foot of height (shrubs) or inch of trunk diameter (trees). Adjust drench volume based on soil type, soil moisture and thickness of mulch so that product is moved into root zone. To enhance soil penetration in heavy soils and sloping terrain, dig shallow holes around tree or shrub, and apply drench solution in holes. Lower drench volumes may be less effective in dry soils or when applied over heavy mulch unless there is adequate rainfall or irrigation after application to move product into root zone.</p>

(continued)

ORNAMENTAL PLANTS – APPLICATION TO SOIL (continued)

Crop	Product Rate (By Weight)	Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines	Field Grown (In-Ground) Trees (Less than 24" diameter at breast height) 3 - 12 grams (1.25 - 5.0 level teaspoons) per inch of trunk diameter at breast height (DBH) 1.05 - 4.2 ounces per 10 inches of trunk diameter at breast height (DBH) For multi-stem trees, base rate on cumulative inches of diameter of all stems at breast height.	Soil Injection: Mix required dose in water and make at least four injections per shrub or tree with a low-pressure applicator. Use same amount of solution per hole. Injections can be made using the following methods: Grid System – Space injections on a 2.5 ft center extending to drip line. Circle System – Make injections in concentric circles extending inward from drip line. Basal System – Space injections evenly around trunk no more than 24" out from the base. <i>Safari 20 SG Insecticide</i> may be soil injected with low volume (e.g. Kioritz injector) or high volume injection equipment. Inject 1 - 32 fl oz of dilute solution per foot of height or inch of trunk diameter depending on application equipment. Make shallow injections where feeder roots are most concentrated.
	Field Grown (In-Ground) Trees (24" diameter or greater at breast height) 6 - 12 grams (2.5 - 5.0 level teaspoons) per inch of trunk diameter at breast height (DBH) 2.1 - 4.2 ounces per 10 inches of trunk diameter at breast height (DBH) For multi-stem trees, base rate on cumulative inches of diameter of all stems at breast height.	
	Hedges 0.25 - 1.0 oz per foot of hedge height per 100 linear feet of hedge row	Apply in enough water to wet the lower 12" of trunk and surrounding soil surface. Apply in a one foot wide band over base of trunk and soil down center of hedgerow. To improve performance, rake back mulch before application.

(continued)

ORNAMENTAL PLANTS – APPLICATION TO SOIL (continued)

Crop	Product Rate (By Weight)		Remarks
Ornamental plants including: Shrubs Bedding Plants Flowering Plants Foliage Plants Ground Covers Evergreens Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees Non-Bearing Vines	Field Grown Nursery Stock Banded spray application to soil surface (2.7 lbs per acre)		Apply as a uniform band in row over root zone and lower 6 - 12" of trunk. Apply from peak adult flight to peak egg hatch.
	Row spacing in feet	Ounces per 1,000 linear feet of row	Apply in at least two gallons of water per 1,000 linear feet. Irrigate after application to move product into soil profile.
	3	3	
	4	4	Control any weeds in treated area prior to application, or performance may be reduced.
	5	5	
	6	6	Adjust rates accordingly for other row spacing. Irrigate after application to move <i>Safari</i> 20 SG Insecticide to the root zone.
	7	7	
	8	8	
	Broadcast spray to soil of plant beds 2.7 lbs per acre		Apply over the top of ornamental plant beds in a water volume sufficient to move product to soil surface. If necessary, irrigate after application to move product off of foliage and into upper root zone of soil. May be less effective on large woody shrubs than on herbaceous annuals and perennials.

Important Notes:

One (1) level teaspoon contains 2.4 grams, and 1 cup (8 fl oz) contains 4.0 oz by weight of *Safari* 20 SG Insecticide.

For all soil applications, including chemigation, retreatments may be made after 7 days but do not apply more than 2.7 lbs (0.54 lbs ai) per acre of nursery or landscape per year.

Restrictions:

Do not apply more than 2.7 lbs (0.54 lbs ai) per acre of nursery or landscape per year.

To delay the development of resistance in greenhouses, nurseries and interiorscapes, do not make more than one soil application per crop cycle or three months, whichever is shorter. Refer to "Resistance Management" section of the label for additional guidelines.

ORNAMENTAL PLANTS

BASAL TRUNK SPRAYS IN TREES AND LARGE SHRUBS

For systemic insect control in containerized and field grown (in-ground) ornamental trees and shrubs in nurseries, interior plantscapes, lath and shadehouses and outdoor landscapes (commercial, industrial, recreational and residential) when applied as a trunk spray.

Crop	Pest	Product Rate (By weight)	Remarks
Shrubs Ornamental Trees Non-Bearing Fruit Trees Non-Bearing Nut Trees	Adelgids including Hemlock Woolly Flatheaded Borers including Emerald Ash Flatheaded Appletree Roundheaded Borers (Excluding Asian Longhorned) Scales including Calico Whiteflies including Fig (Ficus)	12 - 24 oz per gallon Depending on bark type and thickness, one gallon of spray solution will typically cover 65 - 85" of cumulative trunk diameter (1.5 - 2.0 fl oz per inch of trunk diameter) when applied to trunk between soil surface and 4.5 feet above soil surface.	When sprayed on the trunk, <i>Safari 20 SG</i> Insecticide will be absorbed through the bark and into the vascular system, and then transported throughout the tree. Speed of control will be dependent on tree size, tree health, environmental conditions and how actively pests are feeding. In actively transpiring trees, control may be evident within 1-3 weeks after application. Spray bark on root flare (buttress roots) and on trunk between soil surface and 4-5 feet above the soil surface. Adjust nozzle to uniformly distribute spray over the entire circumference of the tree trunk and buttress roots. Wet bark just to the point of saturation and run off onto soil. Apply ONLY with a low volume sprayer operated at less than 20 PSI to prevent tree damage, bounce back and drift of spray droplets. Time applications to coincide with when most vulnerable pest life stage is present on plants. Do not apply to wet bark, during rainfall or if rain is expected within 12 hours. Control may be less effective in trees with thick bark, and at times when trees are not actively growing or transpiring.

One (1) level teaspoon contains 2.4 grams, and 1 cup (8 fl oz) contains 4.0 oz by weight of *Safari 20 SG* Insecticide.

Restrictions:

Do not apply more than 2.7 lbs (0.54 lbs a.i.) per acre of nursery or landscape per year.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment.

Pesticide Storage: Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Store in a cool dry place. Do not store diluted spray. For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-892-0099.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container: Do not reuse or refill the container. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Products That Work, From People Who Care and Safari are a registered trademarks of Valent U.S.A. Corporation

Manufactured for

Valent U.S.A. Corporation

P.O. Box 8025

Walnut Creek CA 94596-8025

Made in U.S.A.

Form 1510-E

EPA Reg. No. 86203-11-59639

EPA Est. 67545-AZ-01

Information contained in this booklet is accurate at the time of printing. Since product testing is a continuous process, please read and follow the directions on the product label for the most current directions and precautionary statements.

Always check with your state to verify state registration status or call 800-89-VALENT (898-2536).



For state registration and/or supplemental labels, please call or visit us online.

Products That Work, From People Who Care® | valentpro.com | 800-89-VALENT (898-2536)

Always read and follow label instructions.

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CoreTect[®]

GROUP 4A INSECTICIDE

▲
Pull here to open

TREE AND SHRUB INSECTICIDE TABLETS

For use in landscapes, forested areas, nurseries, greenhouses and interiorscapes.

ACTIVE INGREDIENT: Imidacloprid,
1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine20%

OTHER INGREDIENTS:80%

TOTAL:100%

Guaranteed Analysis 12-9-4

EPA Reg. No. 432-1457

Contents

250 Tablets

Net Weight

1.38 LB (.625kg)

79283261 61384462C 160516AV2

**STOP - Read the label
before use.
Keep out of reach of
children.**

CAUTION

See Back Panel for First Aid Instructions and Booklet for
Complete Precautionary Statements and Directions for Use.

For **MEDICAL** and **TRANSPORTATION** Emergencies

ONLY Call 24 Hours A Day 1-800-334-7577

For **PRODUCT USE** Information Call 1-800-331-2867



CoreTect[®]

GROUP 4A INSECTICIDE

TREE AND SHRUB INSECTICIDE TABLETS

For use in landscapes, forested areas, nurseries, greenhouses and interiorscapes.

ACTIVE INGREDIENT: Imidacloprid,
1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine 20%

OTHER INGREDIENTS: 80%

TOTAL:

100%

Guaranteed Analysis 12-9-4

EPA Reg. No. 432-1457

Contents

250 Tablets

Net Weight

1.38 LB (.625kg)

79283261 61384462C 160516AV2

**STOP - Read the label
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For **MEDICAL** and **TRANSPORTATION** Emergencies

ONLY Call 24 Hours A Day 1-800-334-7577

For **PRODUCT USE** Information Call 1-800-331-2867

FIRST AID	
If on skin or clothing:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
<p>In case of emergency call toll free the Bayer Environmental Science Emergency Response Telephone No. 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
<p>Note To Physician: No specific antidote is available. Treat the patient symptomatically.</p>	

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

Personal Protective Equipment (PPE):

WPS USES: Applicators and Other Handlers who handle this product for any use covered by the Worker Protection Standard (40 CFR part 170) – must wear:

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton.
- Shoes plus socks

Non-WPS USES: Applicators and other handlers who handle this product for any use NOT covered by the Worker Protection Standard (40 CFR part 170) – in general, only agricultural plant uses are covered by the WPS, must wear:

- Long-sleeved shirt and pants
- Shoes plus socks
- Gloves

Follow manufacturer's instructions for cleaning/ maintaining personal protective equipment, PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations

User should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Resistance Management Recommendations

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area. CoreTect® contains a Group 4A insecticide. Insect biotypes with acquired or inherent resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species.

The active ingredient in CoreTect is a member of the neonicotinoid chemical class. Insect pests resistant to other chemical classes have not shown cross-resistance to CoreTect.

Contact your Cooperative extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirement specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Use CoreTect as directed on ornamental trees, shrubs, and plants on home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, athletic fields, and municipal, city, state, national, and private wooded and forested areas.

Use Coretect as directed on ornamental trees, shrubs, and plants in interiorscapes, nurseries and greenhouses.

Restrictions:

- Do not apply more than 450 tablets per acre per calendar year (0.5 lb imidacloprid) to in ground plants.
- Apply only to ornamentals and non-bearing fruit trees. Non-bearing trees are defined as trees that will not bear fruit until at least 1 year after treatment.
- Restriction for Outdoor Use: Do not apply this product, by any application method, to linden, basswood, or other Tilia species.
- Do not apply tablets to saturated soils.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: The Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is

- Long-sleeved shirt and long pants
- Chemical resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep children and pets off treated area until dry.

LANDSCAPE, INTERIORSCAPES AND FORESTED AREAS*

CoreTect will control or significantly reduce populations of insects that attack containerized, newly-planted, and established trees. For trees and shrubs grown in landscapes and interiorscapes for more than one year, CoreTect will provide control of insects for up to one year. The decision to retreat plants in the second year after application should be based on the presence of pests.

CoreTect is formulated to provide consistent delivery of active ingredient over time. Release of active ingredient is dependent on presence of adequate soil moisture. For best results, irrigate the plant after treatment, and ensure that the plant receives regular irrigation for at least 2-3 months after treatment.

Treatment of containerized or balled and burlapped ornamentals at planting – While planting containerized ornamentals, place the prescribed number of CoreTect tablets in each planting hole directly underneath the root ball, or 1-4" deep into the root ball after the plant has been placed in the hole and the hole filled with soil. Do not apply tablets if the soil is saturated or if there is water present at the bottom of the planting hole.

Treatment of in-ground and permanently-containerized ornamentals – For best results on established ornamentals, place CoreTect as close to the fine absorptive roots as possible. For most deciduous trees and shrubs, an adequate number of these absorptive roots are located within 6-24" of the trunk, depending on tree size. Apply CoreTect 2-5" below the soil surface, next to the plant (ca. within 3-5" of newly planted trees or shrubs, or within 6-24" of well-established ornamentals). Ensure that the tablets are completely covered with soil after application.

For bushy coniferous trees and shrubs, numerous absorptive roots may be located near the drip-line. To apply CoreTect post-plant to plants with a definite drip-line, place tablets 2-5" below the

soil surface, evenly spaced around the tree and along the drip-line. Ensure that the tablets are completely covered with soil after application.

*Natural or planted stands of trees and excludes tree stands in agricultural production systems.

LANDSCAPE, INTERIORSCAPES AND FORESTED AREAS

Sites	Pest	Container size	Dose (# tablets per pot)
Ornamental trees, shrubs, and ornamental plants in containers prior to, during or after planting into landscapes and interiorscapes	Adelgids (hemlock woolly adelgid)	< 1 gallon	1
	Aphids	1 gallon	1-2
	Flatheaded borers (excluding emerald ash borer)	3 gallon	2-3
	Leaf-feeding beetles	5 gallon	3-4
	(Japanese beetle and vine weevil adults)	7 gallon	4-5
	Leaf-feeding bugs (lace bugs, leaf bugs and plant bugs)	10 gallon	5-7
	Leafhoppers, planthoppers, sharpshooters (glassy-winged sharpshooter) and spittlebugs	Large containers (spaded, balled and burlapped, and pot-in-pot)	2-3 tablets per inch of trunk diameter or per foot of shrub height
	Leafminers		
	Mealybugs		

continued

LANDSCAPE, INTERIORSCAPES AND FORESTED AREAS

Sites	Pest	Container size	Dose (# tablets per pot)
Ornamental trees, shrubs, and ornamental plants in containers prior to, during or after planting into landscapes and interiorscapes	Pine tip moth larvae	< 1 gallon	1
	Psyllids	1 gallon	1-2
	Roundheaded borers (excluding Asian longhorned beetle)	3 gallon	2-3
	Royal palm bug	5 gallon	3-4
	Sawfly larvae	7 gallon	4-5
	Scales (Brown soft, Camellia, Cottony cushion, European elm, False oleander, Fletcher, Florida red, Florida wax, Green, Green shield, Hemispherical, Indian wax, Lecanium, Magnolia, Oystershell, Striped pine, Tea, Tortoise, Tuliptree, and White peach scales)	10 gallon	5-7
		Large containers (spaded, balled and burlapped, and pot-in-pot)	2-3 tablets per inch of trunk diameter or per foot of shrub height

continued

LANDSCAPE, INTERIORSCAPES AND FORESTED AREAS

Sites	Pest	Container size	Dose (# tablets per pot)
Ornamental trees, shrubs, and ornamental plants in containers prior to, during or after planting into landscapes and interiorscapes	Thrips (foliage only)	< 1 gallon	1
	White grub, billbug, and root weevil larvae	1 gallon	1-2
	Whiteflies	3 gallon	2-3
	(including fig whitefly)	5 gallon	3-4
		7 gallon	4-5
		10 gallon	5-7
		Large containers (spaded, balled and burlapped, and pot-in-pot)	2-3 tablets per inch of trunk diameter or per foot of shrub height

continued

LANDSCAPE, INTERIORSCAPES AND FORESTED AREAS

Sites	Pest	
Established or newly-planted ornamental trees and shrubs	<p>Adelgids (including hemlock woolly adelgid)</p> <p>Aphids</p> <p>Leaf-feeding beetles (Japanese beetle and vine weevil adults)</p> <p>Leaf-feeding bugs (lace bugs, leaf bugs and plant bugs)</p> <p>Leafhoppers, planthoppers, sharpshooters (including glassy-winged sharpshooter) and spittlebugs</p> <p>Leafminers</p> <p>Mealybugs</p> <p>Pine tip moth larvae</p> <p>Psyllids</p> <p>Royal palm bug</p> <p>Sawfly larvae</p> <p>Soft scales</p> <p>Whiteflies</p>	2-3 tablets per inch of trunk diameter or per foot of shrub height

continued

LANDSCAPE, INTERIORSCAPES AND FORESTED AREAS

Sites	Pest	
Established or newly-planted ornamental trees and shrubs	Armored scales (including Camellia, False oleander, Florida red, Oystershell, Tea, and White peach scales) Flatheaded borers (excluding emerald ash borer) Roundheaded borers (excluding Asian longhorned beetle) Thrips (foliage only) White grub, billbug, and root weevil larvae	3 tablets per inch of trunk diameter or per foot of shrub height
Restriction: Do not apply this product, by any application method, to linden, basswood, or other Tilia species; do not apply more than 450 tablets per acre per calendar year (0.5 lb imidacloprid) to in-ground plants.		

NURSERY AND GREENHOUSE

Coretect will control or significantly reduce populations of insects that attack containerized, newly-planted and established trees and shrubs. For trees and shrubs grown in nurseries and greenhouses, Coretect will provide control of insects for up to one year. The decision to retreat plants in the second year after application should be based on the presence of pests.

Coretect is formulated to provide consistent delivery of active ingredient over time. Release of active ingredient is dependent on presence of adequate soil moisture. Irrigate moderately but thoroughly after application, allowing no leaching and runout from container for at least 3 irrigations or 10 days which ever is longer. Ensure that the plant receives regular irrigation for at least 2-3 months after treatment.

Treatment of containerized ornamental plants - For containerized, balled and burlapped, and pot-in-pot trees and shrubs, place the prescribed number of Coretect 1-4" deep into the media, and at least 2" from the outside edge of the container. Ensure that the tablet is completely covered with media after application.

Treatment of bare root seedlings, whips, sticks, cuttings, etc., at planting – Place the prescribed number of Coretect in each planting hole or slit, directly underneath to or next to the root system of the plant. Or, place the tablets 1-4" deep into the soil next to the plant (ca. within 2-5") after the plant has been planted and the root system covered with soil. Do not apply tablets if the soil is saturated or if there is water present at the bottom of the planting hole or slit.

Treatment of containerized or balled and burlapped trees and shrubs at planting – While planting containerized trees and shrubs, place the prescribed number of Coretect in each planting hole directly underneath the root ball, or 1-4" deep into the root ball after the plant has been placed

in the hole and the hole filled with soil. Do not apply tablets if the soil is saturated or if there is water present at the bottom of the planting hole.

Treatment of in-ground trees and shrubs – For best results on established trees and shrubs, place Coretect as close to the fine absorptive roots as possible. For most deciduous trees and shrubs, these and adequate number of these absorptive roots are located within 6-24" of the trunk, depending on tree size. Apply Coretect 2-5" below the soil surface, next to the plant (ca. within 3-5" of newly planted trees or shrubs, or within 6-24" of well-established ornamentals). Ensure that the tablets are completely covered with soil after application.

For bushy coniferous trees and shrubs, numerous absorptive roots may be located near the drip-line. To apply Coretect post-plant to plants with a definite drip-line, place tablets 2-5" below the soil surface, evenly spaced around the tree and along the drip-line. Ensure that the tablets are completely covered with soil after application.

NURSERY AND GREENHOUSE

Crop	Pest	Container size	Dose (# tablets per pot)
Ornamental trees and shrubs (including non-bearing fruit and nut trees) in containers or in containers prior to planting, during or after planting into landscape environments	Adelgids	< 1 gallon	1
	Aphids	1 gallon	1-2
	Armored scales (suppression)	3 gallon	2-3
	Black vine weevil larvae	5 gallon	3-4
	Flatheaded borers (excluding emerald ash borer)	7 gallon	4-5
		10 gallon	5-7
	Japanese beetle adults	Large containers, or spaded, balled and burlaped, and pot-in-pot ornamentals	2-3 tablets per inch of trunk diameter or per foot of shrub height
	Lace bugs		
	Leaf beetles		
	Leafhoppers (including glassy -winged sharpshooter)		
	Leafminers		
	Mealybugs		
	Pine tip moth larvae		
	Psyllids		

continued

NURSERY AND GREENHOUSE

Crop	Pest	Container size	Dose (# tablets per pot)
Ornamental trees and shrubs (including non-bearing fruit and nut trees) in containers or in containers prior to planting, during or after planting into landscape environments	Roundheaded borers (excluding Asian longhorned beetle)	< 1 gallon	1
		1 gallon	1-2
		3 gallon	2-3
	Royal palm bugs	5 gallon	3-4
	Sawfly larvae	7 gallon	4-5
	Soft scales	10 gallon	5-7
	Thrips (foliage only)		
	White grub larvae		
	Whiteflies	Large containers, or spaded, balled and burlaped, and pot-in-pot ornamentals	2-3 tablets per inch of trunk diameter or per foot of shrub height

Restriction for Outdoor Use: Do not apply this product, by any application method, to linden, basswood, or other *Tilia* species; do not apply more than 450 tablets per acre per calendar year (0.5 lb imidacloprid) to in-ground plants.

NURSERY AND GREENHOUSE

Crop	Pest	Dose (# tablets)
Newly-planted whips or seedling ornamentals (including non-bearing fruit and nut trees), less than 1" dbh, or less than 1 ft of shrub height	Adelgids Aphids Armored scales (suppression) Japanese beetle adults Lace bugs Leaf beetles Leafhoppers (including glassy-winged sharpshooter) Mealybugs Psyllids Soft scales Thrips (foliage feeding) White grub larvae Whiteflies	1 tablet per plant for preventative or first onset of infestation 2 tablets per plant - higher rate for heavy pest population

continued

NURSERY AND GREENHOUSE *(continued)*

Crop	Pest	Dose (# tablets)
Newly-planted whips or seedling ornamentals (including non-bearing fruit and nut trees), less than 1" dbh, or less than 1 ft of shrub height	Black vine weevil larvae Flatheaded borers (excluding emerald ash borer) Leafminers Pine tip moth larvae Roundheaded borers (excluding Asian longhorned beetle) Royal palm bugs Sawfly larvae	2 tablets per plant
Restriction for Outdoor Use: Do not apply this product, by any application method, to linden, basswood, or other <i>Tilia</i> species; do not apply more than 450 tablets per acre per calendar year (0.5 lb imidacloprid) to in-ground plants.		

NURSERY AND GREENHOUSE

Crop	Pest	Dose (# tablets)
Established or newly-planted ornamental trees and shrubs (<u>greater than 1"</u> dbh, or greater than 1 ft of shrub height)	Adelgids Aphids Armored scales (suppression) Black vine weevil larvae Flatheaded borers (excluding emerald ash borer) Japanese beetle adults Lace bugs Leaf beetles Leafhoppers (including glassy-winged sharpshooter) Leafminers Mealybugs Pine tip moth larvae Psyllids	2-3 tablets per inch of trunk diameter or per foot of shrub height

continued

NURSERY AND GREENHOUSE *(continued)*

Crop	Pest	Dose (# tablets)
Established or newly-planted ornamental trees and shrubs (greater than 1" dbh, or greater than 1 ft of shrub height)	Roundheaded borers (excluding Asian longhorned beetle) Royal palm bugs Sawfly larvae Soft scales Thrips (foliage only) White grub larvae Whiteflies	2-3 tablets per inch of trunk diameter or per foot of shrub height

Restriction for Outdoor Use: Do not apply this product, by any application method, to linden, basswood, or other *Tilia* species; do not apply more than 450 tablets per acre per calendar year (0.5 lb imidacloprid) to in-ground plants.

Guaranteed Analysis 12-9-4

Total Nitrogen (N)	12.00%
1.30% Ammoniacal Nitrogen	
0.70% Other Water Soluble Nitrogen	
10.00% Water Insoluble Nitrogen*	
Available Phosphate (P2O5)	9.00%
Soluble Potash (K2O)	4.00%
Magnesium (Mg)	0.50%
0.50% Water Soluble Magnesium (Mg)	
Sulfur (S)	3.40%
3.40% Combined Sulfur (S)	
Molybdenum (Mo)	0.004%

F1559

Derived from: Isobutylidene Diurea, Ammonium Phosphate, Ammonium Sulfate, Sulfate of Potash, Magnesium Sulfate and Ammonium Molybdate

*10.00% Slowly Available Nitrogen from Isobutylidene Diurea.

F1559

CAUTION: The application of fertilizing materials containing Molybdenum (MO) may result in forage crops containing levels of Molybdenum (MO) which are toxic to ruminant animals.

*WIN (Water Insoluble Nitrogen) is stated on an unground basis. Powdered or ground samples will analyze at 3.00%.

Information regarding the contents and levels of metals in this product are available on the Internet at <http://www.aapfco.org/metals.htm>

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or dispose of in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Pesticide Storage: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides above. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer Environmental Science Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer Environmental Science Emergency Response Telephone No. is 1-800-334-7577 or contact Chemtrec at 1-800-424-9300.

IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury or ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience LP. All such risks shall be assumed by the user or buyer.

DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTANT WITH APPLICABLE LAW, BAYER CROPSOURCE LP MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. No agent of Bayer CropScience LP is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. TO THE EXTENT CONSISTANT WITH APPLICABLE LAW, BAYER CROPSOURCE LP DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTANT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES

RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE LP'S ELECTION, THE REPLACEMENT OF PRODUCT.

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Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
2 T. W. Alexander Drive
Research Triangle Park, NC 27709

Bayer



CoreTect[®]

**TREE AND SHRUB
INSECTICIDE TABLETS**

GROUP 4A INSECTICIDE

For use in landscapes, forested areas, nurseries, greenhouses and interiorscapes.

ACTIVE INGREDIENT:

Imidacloprid, 1-[(6-Chloro-3-pyridinyl)
methyl]-N-nitro-2-imidazolidinimine20%

OTHER INGREDIENTS:80%

TOTAL:

Guaranteed Analysis 12-9-4

EPA Reg. No. 432-1457

Contents

250 Tablets

Net Weight

1.38 LB (.625kg)

79283261

61384462C 160516AV2

100%

STOP - Read the label before use.

Keep out of reach of children.

CAUTION

See Back Panel for First Aid Instructions
and Booklet for Complete Precautionary
Statements and Directions for Use.

For **MEDICAL** and **TRANSPORTATION** Emergencies

ONLY Call 24 Hours A Day 1-800-334-7577

For **PRODUCT USE** Information Call

1-800-331-2867

▲
Pull here to open

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND
DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

61384551C 160516AV2

FIRST AID

**If on skin
or clothing:**

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15 to 20 minutes.
- Call a poison control center or doctor for treatment advice.

**If
swallowed:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

If in eyes:

- Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

In case of emergency call toll free the Bayer Environmental Science Emergency Response Telephone No. 1-800-334-7577. Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

Note To Physician: No specific antidote is available. Treat the patient symptomatically.

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Pest Alert

Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Spotted Lanternfly (*Lycorma delicatula*)

The spotted lanternfly is an invasive pest, primarily known to affect tree of heaven (*Ailanthus altissima*). It has been detected on many host plants, including apples, plums, cherries, peaches, nectarines, apricots, almonds, and pine. It also feeds on oak, walnut, poplar, and grapes. The insect will change hosts as it goes through its developmental stages. Nymphs feed on a wide range of plant species, while adults prefer to feed and lay eggs on tree of heaven (*A. altissima*).¹ If allowed to spread in the United States, this pest could seriously harm the country's grape, orchard, and logging industries.

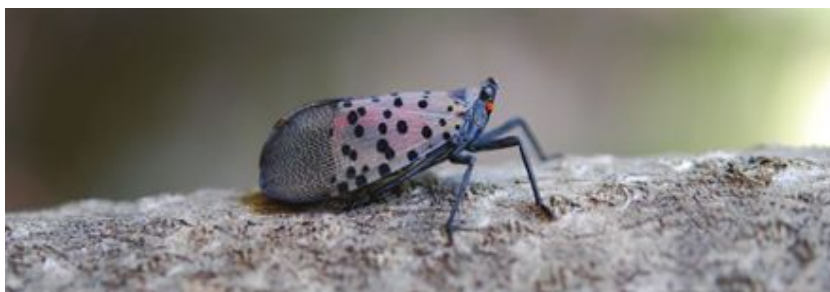
Distribution and Spread

The spotted lanternfly is present in China, India, Japan, South Korea, and Vietnam. The insect was detected in Pennsylvania in September 2014. This was the first detection of spotted lanternfly in the United States.

Spotted lanternflies are invasive and can spread rapidly when introduced to new areas. While the insect can walk, jump, or fly short distances, its long-distance spread is facilitated by people who move infested material or items containing egg masses.

Damage

Both nymphs and adults of spotted lanternfly cause damage when they feed, sucking sap from stems and leaves. This can reduce photosynthesis, weaken the plant, and eventually contribute to the plant's death. In addition, feeding can cause the plant to ooze or weep,



Adult spotted lanternfly

resulting in a fermented odor, and the insects themselves excrete large amounts of fluid (honeydew). These fluids promote mold growth and attract other insects.

Description

Adult spotted lanternflies are approximately 1 inch long and one-half inch wide, and they have large and visually striking wings. Their forewings are light brown with black spots at the front and a speckled band at the rear. Their hind wings are scarlet with black spots at the front and white and black bars at the rear. Their abdomen is yellow with black bars. Nymphs in their early stages of

development appear black with white spots and turn to a red phase before becoming adults. Egg masses are yellowish-brown in color, covered with a gray, waxy coating prior to hatching.

Life Cycle

The spotted lanternfly lays its eggs on smooth host plant surfaces and on non-host material, such as bricks, stones, and dead plants. Eggs hatch in the spring and early summer, and nymphs begin feeding on a wide range of host plants by sucking sap from young stems and leaves. Adults appear in late July and tend to focus their feeding on tree of heaven (*A. altissima*) and grapevine

¹ In Pennsylvania, adult spotted lanternflies have also been found feeding and egg laying on willow, maple, poplar, and sycamore, as well as on fruit trees, like plum, cherry, and peach.

(*Vitis vinifera*). As the adults feed, they excrete sticky, sugar-rich fluid similar to honeydew. The fluid can build up on plants and on the ground underneath infested plants, causing sooty mold to form.

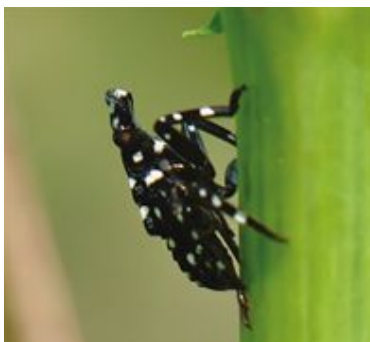
Where To Look

Spotted lanternfly adults and nymphs frequently gather in large numbers on host plants. They are easiest to spot at dusk or at night as they migrate up and down the trunk of the plant. During the day, they tend to cluster near the base of the plant if there is adequate cover or in the canopy, making them more difficult to see. Egg masses can be found on smooth surfaces on the trunks of host plants and on other smooth surfaces, including brick, stone, and dead plants.

Report Your Findings

If you find an insect that you suspect is the spotted lanternfly, please contact your local Extension office or State Plant Regulatory Official to have the specimen identified properly.

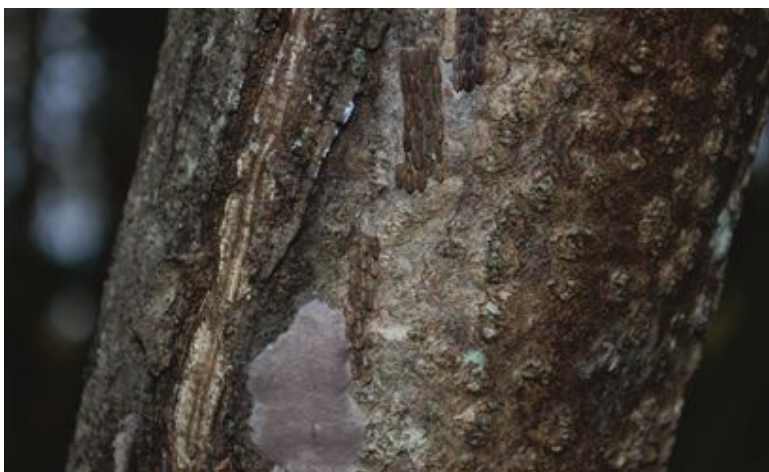
To locate an Extension specialist near you, go to the U.S. Department of Agriculture (USDA) Web site at **www.nifa.usda.gov/Extension**. A directory of State Plant Regulatory Officials is available on the National Plant Board Web site at **www.nationalplantboard.org/membership**.



Nymphs are black with white spots in early stages of development. (Credit: itchydogimages)



Nymphs turn red just before becoming adults. (Credit: itchydogimages)



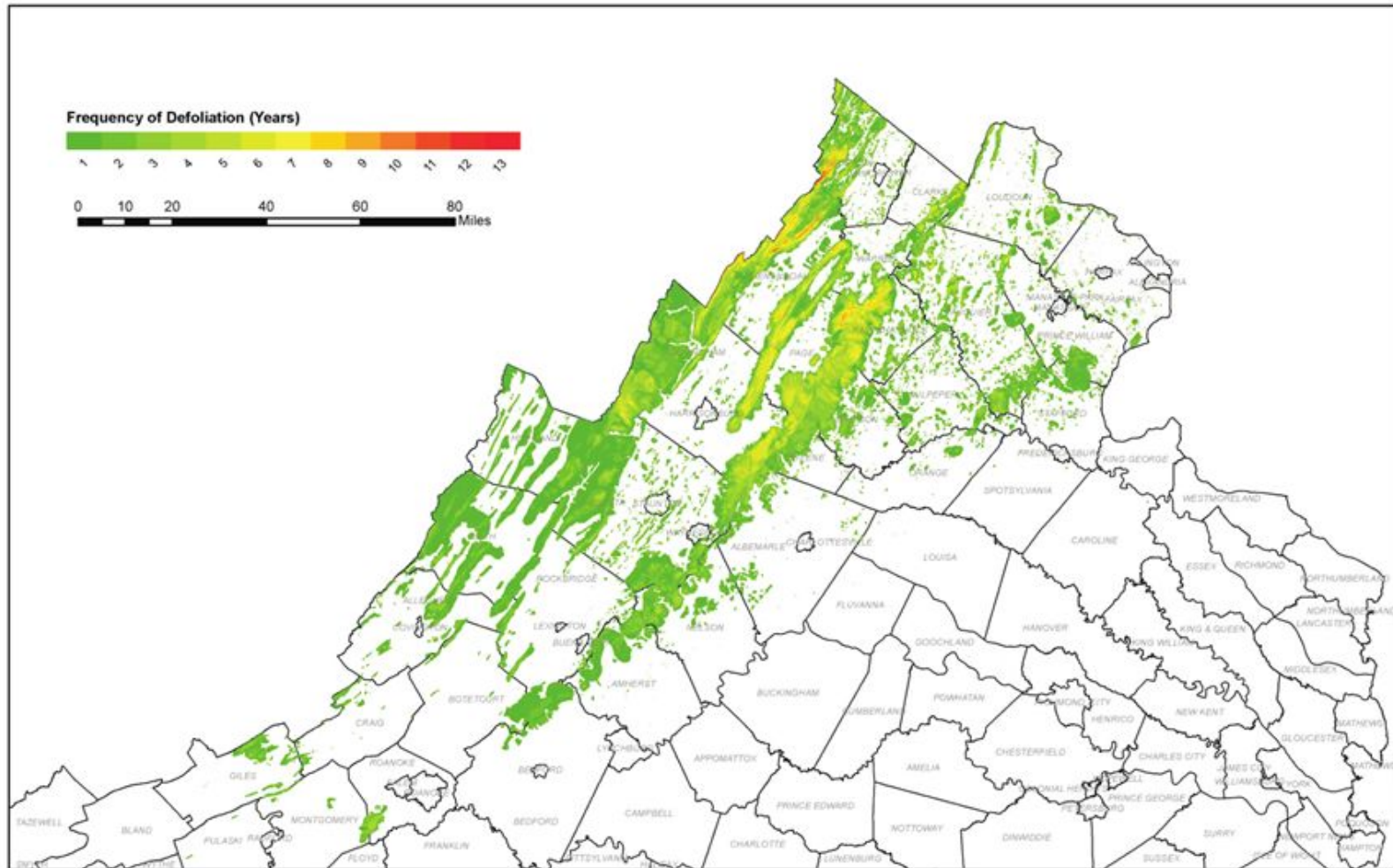
Hatched and unhatched egg masses



Cluster of adults on the trunk of a tree at night



Gypsy Moth Cumulative Defoliation (1984-2009)



Acres affected within Virginia
Total - 2,426,956

Mapped by Todd Edgerton 2/17/2010

Pest Alert

United States
Department of
Agriculture

Forest Service

Northeastern Area
State and Private Forestry

NA-PR-09-05

August 2005

Hemlock Woolly Adelgid

Native to Asia, the hemlock woolly adelgid (*Adelges tsugae*) is a small, aphidlike insect that threatens the health and sustainability of eastern hemlock (*Tsuga canadensis*) and Carolina hemlock (*Tsuga caroliniana*) in the Eastern United States. Hemlock woolly adelgid was first reported in the Eastern United States in 1951 near Richmond, Virginia. By 2005, it was established in portions of 16 States from Maine to Georgia, where infestations covered about half of the range of hemlock. Areas of extensive tree mortality and decline are found throughout the infested region, but the impact has been most severe in some areas of Virginia, New Jersey, Pennsylvania, and Connecticut.

Hemlock decline and mortality typically occur within 4 to 10 years of infestation in the insect's northern range, but can occur in as little as 3 to 6 years in its southern range. Other hemlock stressors, including drought, poor site conditions, and insect and disease pests such as elongate hemlock scale (*Fiorinia externa*), hemlock looper (*Lambdina fiscellaria fiscellaria*), spruce spider mite (*Oligonychus ununguis*), hemlock borer (*Melanophila fulvogutta*), root rot disease (*Armillaria mellea*), and needle rust (*Melampsora parlowii*), accelerate the rate and extent of hemlock mortality.

Hosts

The hemlock woolly adelgid develops and reproduces on all species of hemlock, but only eastern and Carolina hemlock are vulnerable when attacked. The range of eastern hemlock stretches from Nova Scotia to northern Alabama and west to northeastern Minnesota and eastern Kentucky. Carolina hemlock occurs on dry mountain slopes in the southern Appalachians of western Virginia, North and South Carolina, Georgia, and Tennessee. Eastern hemlock is also commonly planted as a tree, shrub, or hedge in ornamental landscapes. At least 274 cultivars of eastern hemlock are known to exist.

Description

The hemlock woolly adelgid is tiny, less than 1/16-inch (1.5-mm) long, and varies from dark reddish-brown to purplish-black in color. As it matures, it produces a covering of wool-like wax filaments to protect itself and its eggs from natural enemies and prevent them from drying out. This "wool" (ovisac) is most conspicuous when the adelgid is mature and laying eggs. Ovisacs can be readily



FIGURE 1.—Hemlock woolly adelgid ovisacs.

observed from late fall to early summer on the underside of the outermost branch tips of hemlock trees (figure 1).

Life History

The hemlock woolly adelgid is parthenogenetic (all individuals are female with asexual reproduction) and has six stages of development: the egg, four nymphal instars, and the adult. The adelgid completes two generations a year on hemlock. The winter generation, the sistens, develops from early summer to midspring of the following year (June–March). The spring generation, the progrediens, develops from spring to early summer (March–June). The generations overlap in mid to late spring.

The hemlock woolly adelgid is unusual in that it enters a period of dormancy during the hot summer months. The nymphs during this time period have a tiny halo of woolly wax surrounding their bodies (figure 2). The adelgids begin to feed once cooler temperatures prevail, usually in October, and continue throughout the winter months.

The ovisacs of the winter generation contain up to 300 eggs, while the spring generation ovisacs contain between 20 and 75 eggs. When hatched, the first instar nymphs, called crawlers, search for suitable feeding sites on the twigs at the base of hemlock needles. Once settled, the nymphs begin feeding on the young twig tissue and remain at that location throughout the remainder of their development. Unlike closely related insects that feed on nutrients in sap, the hemlock woolly adelgid feeds on stored starches. These starch reserves are critical to the tree's growth and long-term survival.



FIGURE 2.—Hemlock woolly adelgid nymphs in dormancy.



FIGURE 3.—Chemical treatment using the soil injection method.



FIGURE 4.—Predators introduced for control in the Eastern United States, left to right (origin): *Sasajiscymnus tsugae* (Japan), *Scymnus sinuanodulus* (China), and *Laricobius nigrinus* (Western North America).

Dispersal and movement of hemlock woolly adelgid occur primarily during the first instar crawler stage as a result of wind and by birds, deer, and other forest-dwelling mammals that come in contact with the sticky ovisacs and crawlers. Isolated infestations and long-distance movement of hemlock woolly adelgid, though, most often occur as the result of people transporting infested nursery stock.

Control

Cultural, regulatory, chemical, and biological controls can reduce the hemlock woolly adelgid's rate of spread and protect individual trees. Actions such as moving bird feeders away from hemlocks and removing isolated infested trees from a woodlot can help prevent further infestations. State quarantines help prevent the movement of infested materials into noninfested areas.

Chemical control options, such as foliar sprays using horticultural oils and insecticidal soaps, are effective when trees can be saturated to ensure that the insecticide comes in contact with the adelgid. Several systemic insecticides have also proven effective on large trees when applied to the soil around the base of the tree or injected directly into the stem (figure 3). Chemical control is limited to individual tree treatments in readily accessible, nonenvironmentally sensitive areas; it is not feasible in forests, particularly when large numbers of trees are infested. Chemical treatments offer a short-term solution, and applications may need to be repeated in subsequent years.

The best option for managing hemlock woolly adelgid in forests is biological control. Although there are natural enemies native to Eastern North America that feed on hemlock woolly adelgid, they are not effective at reducing populations enough to prevent tree mortality. Therefore, biological control opportunities using natural enemies (predators and pathogens) from the adelgid's native environment are currently being investigated. Several predators known to feed exclusively on adelgids have been imported from China, Japan, and Western North America and are slowly becoming established throughout the infested region (figure 4). It will likely take a complex of natural enemies to maintain hemlock woolly adelgid populations below damaging levels. Efforts to locate, evaluate, and establish other natural enemies continue.

Pesticide Precautionary Statement

Pesticides used improperly can be injurious to humans, animals, and plants. Follow the directions and heed all precautions on the labels.

Note: Some States have restrictions on the use of certain pesticides. Check your State and local regulations. Also, because registrations of pesticides are under constant review by the Federal Environmental Protection Agency, consult your county agricultural agent or State extension specialist to be sure the intended use is still registered.



For additional information or copies of this publication, visit <http://www.na.fs.fed.us/fhp/hwa>.



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Pest Alert

Thousand Cankers Disease

Dieback and mortality of eastern black walnut (*Juglans nigra*) in several Western States have become more common and severe during the last decade. A tiny bark beetle is creating numerous galleries beneath the bark of affected branches, resulting in fungal infection and canker formation. The large numbers of cankers associated with dead branches suggest the disease's name—*thousand cankers disease*.

The principal agents involved in this disease are a newly identified fungus (*Geosmithia* sp. with a proposed name of *Geosmithia morbida*) and the walnut twig beetle (*Pityophthorus juglandis*). Both the fungus and the beetle only occur on walnut species. An infested tree usually dies within 3 years of initial symptoms.

Thousand cankers disease has been found in many Western States (figure 1). The first confirmation of the beetle and fungus within the native range of black walnut was in Tennessee (July 2010). The potential damage of this disease to eastern forests could be great because of the widespread distribution of eastern black walnut, the susceptibility of this tree species to the disease, and the capacity of the fungus and beetle to invade new areas and survive under a wide range of climatic conditions in the west.

Disease Symptoms

The three major symptoms of this disease are branch mortality, numerous small cankers on branches and the bole, and evidence of tiny bark beetles. The earliest symptom is yellowing foliage that progresses rapidly to brown wilted foliage, then finally branch mortality (figure 2). The fungus causes distinctive circular to oblong cankers in the phloem under the bark, which eventually kill the cambium (figure 3). The bark surface may have no symptoms, or a dark amber stain or cracking of the bark may occur directly above a canker. Numerous tiny bark beetle entrance and exit holes are visible on dead and dying branches (figure 4), and bark beetle galleries are often found within the cankers. In the final stages of disease, even the main stem has beetle attacks and cankers.

Geosmithia sp.

Members of the genus *Geosmithia* have not been considered to be important plant pathogens, but



Figure 1. Thousand cankers disease occurs in eight western states (outlined in red) and in the east was first confirmed in Knoxville, TN in July 2010 (see *). In the west the year when symptoms were first noted is given. Native distributions of four species of western walnuts (blue) and eastern black walnut (green) are also shown. Eastern black walnut is widely planted in the West, but not depicted on this map.



Figure 2. Wilting black walnut in the last stages of thousand cankers disease.



Figure 3. Small branch cankers caused by *Geosmithia morbida*.

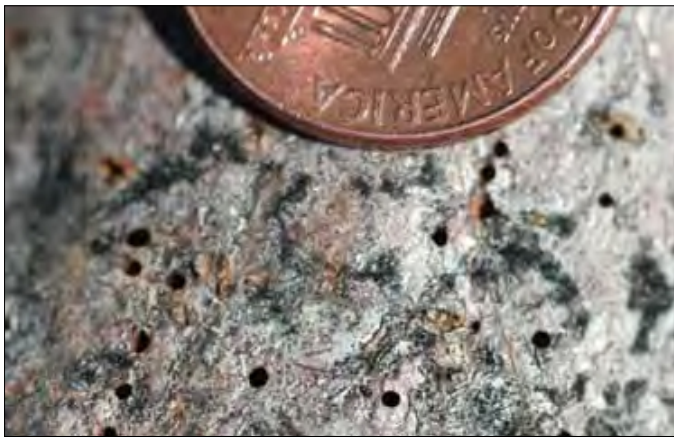


Figure 4. Exit holes made by adult walnut twig beetles.

Geosmithia morbida appears to be more virulent than related species. Aside from causing cankers, the fungus is inconspicuous. Culturing on agar media is required to confirm its identity. Adult bark beetles carry fungal spores that are then introduced into the phloem when they construct galleries. Small cankers develop around the galleries; these cankers may enlarge and coalesce to completely girdle the branch. Trees die as a result of these canker infections at each of the thousands of beetle attack sites.

Walnut Twig Beetle

The walnut twig beetle is native to Arizona, California, and New Mexico. It has invaded Colorado, Idaho, Oregon, Utah, and Washington where walnuts have been widely planted. The beetle has not caused significant branch mortality by itself. Through its association with this newly identified fungus, it appears to have greatly increased in abundance. Adult beetles are very small (1.5 to 2.0 mm long or about 1/16 in) and are reddish brown in color (figure 5). This species is a typical-looking bark beetle that is characterized by its very small size and four to six concentric ridges on the upper surface of the pronotum (the shield-like cover behind and over the head) (figure 5A). Like most bark beetles, the larvae are white, C shaped, and found in the phloem. For this species, the egg galleries created by the adults are horizontal (across the grain) and the larval galleries tend to be vertical (along the grain) (figure 6).

Survey and Samples

Visually inspecting walnut trees for dieback is currently the best survey tool for the Eastern United States. Look for declining trees with the symptoms described above. If you suspect that your walnut trees have thousand cankers disease, collect a branch 2 to 4 inches

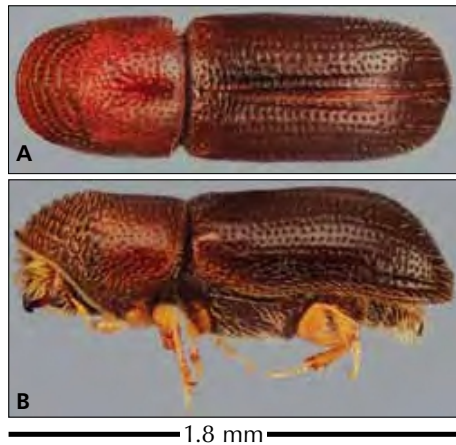


Figure 5. Walnut twig beetle: top view (A) and side view (B).



Figure 6. Walnut twig beetle galleries under the bark of a large branch.

in diameter and 6 to 12 inches long that has visible symptoms. Please submit branch samples to your State's plant diagnostic clinic. Each State has a clinic that is part of the National Plant Diagnostic Network (NPDN). They can be found at the NPDN Web site (www.npdn.org). You may also contact your State Department of Agriculture, State Forester, or Cooperative Extension Office for assistance.

Prepared by:
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Photographs:
Figure 1: Andrew Graves
Figure 2: Manfred Mielke, U.S. Forest Service
Figures 3, 4, 6: Whitney Cranshaw, Colorado State University, www.forestryimages.org
Figure 5: Steve Valley, Oregon Department of Agriculture

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Northeastern Area

NA-PR-02-02
January 2002

Sudden Oak Death

Oak mortality is caused by a new pathogen, *Phytophthora ramorum*

A phenomenon known as Sudden Oak Death was first reported in 1995 in central coastal California. Since then, tens of thousands of tanoaks (*Lithocarpus densiflorus*), coast live oaks (*Quercus agrifolia*), and California black oaks (*Quercus kelloggii*) have been killed by a newly identified fungus, *Phytophthora ramorum*. On these hosts, the fungus causes a bleeding canker on the stem. The pathogen also infects *Rhododendron* spp., huckleberry (*Vaccinium ovatum*), bay laurel (*Umbellularia californica*), madrone (*Arbutus menziesii*), bigleaf maple (*Acer macrophyllum*), manzanita (*Arctostaphylos manzanita*), and California buckeye (*Aesculus californica*). On these hosts the fungus causes leaf spot and twig dieback.



In California *Phytophthora ramorum* causes crown symptoms and tree mortality.

As of January 2002, the disease was known to occur only in California and southwestern Oregon; however, transporting infected hosts may spread the disease. The pathogen has the potential to infect oaks and other trees and shrubs elsewhere in the United States. Limited tests show that many oaks are susceptible to the fungus, including northern red oak and pin oak, which are highly susceptible.

On oaks and tanoak, cankers are formed on the stems. Cankered trees may survive for one to several years, but once crown dieback begins, leaves turn from green to pale yellow to brown within a few weeks. A black or reddish ooze often bleeds from the cankers, staining the surface of the bark and the lichens that grow on it. Bleeding ooze may be difficult to see if it has dried or has been washed off by rain, although remnant dark staining is usually present.

Necrotic bark tissues surrounded by black zone lines are usually present under affected bark. Because these symptoms can also be caused by other *Phytophthora* species, laboratory tests

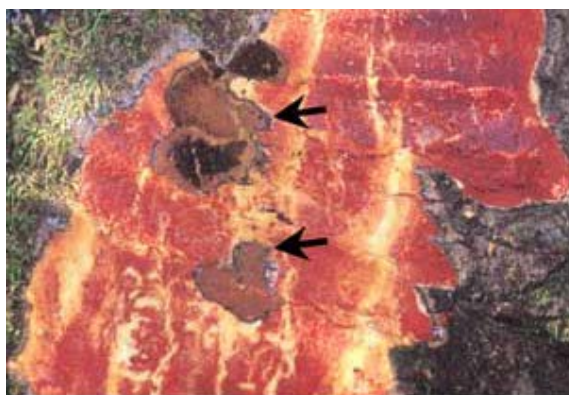
must be done to confirm pathogen identity.

In the Eastern United States, other disorders of oaks have similar symptoms. See the reverse of this sheet for descriptions. If unusual oak mortality occurs and symptoms do not match these regional disorders, evaluate affected trees for *Phytophthora ramorum*.

In the United States, sudden oak death is known to occur only along the west coast. However, the fact that widely traded rhododendron ornamentals can be infected with the pathogen and the demonstrated susceptibility of some important eastern oaks make introduction to eastern hardwood forests a significant risk. Early detection will be important for successful eradication. Oaks defoliated early in the growing season by insects or pathogens may appear dead, but leaves usually reflush later in the season. Canker rots, slime flux, leaf scorch, root diseases, freeze damage, herbicide injury, and other ailments may cause symptoms similar to those caused by *P. ramorum*. Oak wilt, oak decline, and red oak borer damage are potentially the most confusing. See the reverse of this sheet for comparisons with sudden oak death symptoms.



Ooze bleeds from a canker on an infected oak.



Black zone lines are found under diseased bark in oak.

To report infected trees or to receive additional information, please contact your State or Federal forest health specialist. On the Internet, visit the SOD home page at www.suddenoakdeath.org. To distinguish this new disease from diseases with similar appearance, visit <http://www.na.fs.fed.us/SOD>.

Eastern Oak Disorders That Resemble Sudden Oak Death

In eastern hardwood forests, sudden oak death can be confused, in particular, with oak wilt, oak decline, and red oak borer damage. Descriptions of these disorders and comparisons with sudden oak death follow.

Oak Wilt

Oak wilt is an aggressive fungus disease caused by *Ceratocystis fagacearum*. It is one of the most serious diseases in the Eastern United States, killing thousands of oak trees in forests, woodlots, and home landscapes. Susceptible hosts include most oaks in the red oak group and Texas live oak. Symptoms

include wilting and discoloration of the foliage, premature leaf drop, and rapid death of the tree within days or weeks of the first symptoms. Trees become infected with oak wilt in two ways: through connections between root systems of adjacent trees, and through insects that carry the fungus to other trees that have been wounded.

Similarities: Oak wilt can also kill trees very quickly, especially if infection begins through root grafts. Differences: The oak wilt pathogen does not cause cankers on the stems, and no bleeding is associated with this disease. Dark staining may be evident under the bark of trees with oak wilt, but there are no conspicuous zone lines. Oak wilt typically causes red oak leaves to turn brown around the edges while the veins remain green. Leaves are rapidly shed as the tree dies. Conversely, in live oak with the sudden oak death pathogen, the veins first turn yellow and eventually turn brown. Leaves are often retained on the tree after it dies.



Oak wilt quickly kills most infected trees. Wilting leaves turn brown at the margins (inset) and fall as the tree dies.

Oak Decline

Oak decline is a slow-acting disease complex that can kill physiologically mature trees in the upper canopy. Decline results from interactions of multiple stresses, such as prolonged drought and spring defoliation by late frost or insects, opportunistic root disease fungi such as *Armillaria mellea*, and inner-bark-boring insects such as the twolined chestnut borer and red oak borer. Progressive dieback of the crown is the main symptom of oak decline and is an expression of an impaired root system. This disease can kill susceptible oaks within 3-5 years of the onset of crown symptoms. Oak decline occurs throughout the range of eastern hardwood forests, but is particularly common in the Southern Appalachian Mountains in North Carolina, Tennessee, and Virginia, as well as the Ozark Mountains in Arkansas and Missouri.

Similarities: Oak decline can cause death of



Oak decline can take years to kill an entire tree.

many oaks on a landscape scale. Moist, dark stains may be present on the trunk of trees affected by oak decline. Differences: Oak decline shows evidence that dieback has occurred over several years from the top down and outside inward. Newly killed branches with twigs attached are usually found in the same crown as those in a more advanced state of deterioration killed years before. Dieback associated with sudden oak death occurs over a growing season or two. The inner bark beneath the dark stain associated with stem-boring-insect attacks has a discrete margin with no zone lines or evidence of canker development beyond the attack site.

Red Oak Borer

Red oak borer (*Enaphalodes rufulus* (Haldeman)) attacks oaks of both red and white groups throughout the eastern United States, but prefers members of the red oak group; however, it does not kill trees. Outbreaks are associated with stressed trees that eventually die from oak decline. The complete life cycle takes 2 years. Adults are 1-1.5 inches long with antennae one to two times as long as the body. Larvae are the damaging life stage. Adult females lay eggs in mid-summer in refuges in the crevices of the bark. Newly hatched larvae bore into the phloem, where they mine an irregular burrow 0.5-1 inch in diameter before fall. In spring and summer of the second year, dark, moist stains and fine, granular frass may be seen on the trunk. Exposure of the inner bark reveals the

frass-packed burrow and the larva, if it has not bored more deeply into the wood to complete development. Mature larvae are stout, round-headed grubs about 2 inches long before they pupate deep in the wood.

Similarities: Moist, dark stains and fine frass may be present at sites of red oak borer attack. Differences: With red oak borer the inner bark beneath the dark stain contains a frass-packed burrow and has a discrete margin with no zone lines or evidence of canker development beyond it.



Tunnels in the inner bark indicate the presence of red oak borer.

For further information on related disorders:

Oak Wilt: [src="/spfo/pubs/howtos/ht_oakwilt/toc.htm](http://spfo/pubs/howtos/ht_oakwilt/toc.htm)

Oak Decline: [src="/spfo/pubs/fidls/oakdecline/oakdecline.htm](http://spfo/pubs/fidls/oakdecline/oakdecline.htm)

Red Oak Borer: [src="/spfo/pubs/fidls/Red%20Oak%20Borer/redoak.htm](http://spfo/pubs/fidls/Red%20Oak%20Borer/redoak.htm)

Other Pest Publications: [src="/pubs](http://spfo/pubs/)

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Pest Alert



United States
Department of Agriculture
Forest Service
Animal and Plant
Health Inspection Service
NA-PR-01-99GEN
Revised August 2008

Asian Longhorned Beetle (*Anoplophora glabripennis*): A New Introduction

The Asian longhorned beetle (ALB) has been discovered attacking trees in the United States. Tunneling by beetle larvae girdles tree stems and branches. Repeated attacks lead to dieback of the tree crown and, eventually, death of the tree. ALB probably travelled to the United States inside solid wood packing material from China. The beetle has been intercepted at ports and found in warehouses throughout the United States.

This beetle is a serious pest in China, where it kills hardwood trees in roadside plantings, shelterbelts, and plantations. In the United States the beetle prefers maple species (*Acer* spp.), including **boxelder**, **Norway**, **red**, **silver**, and **sugar maples**. Other preferred hosts are **birches**, **Ohio buckeye**, **elms**, **horsechestnut**, and **willows**. Occasional to rare hosts include **ashes**, **European mountain ash**, **London planetree**, **mimosa**, and **poplars**. A complete list of host trees in the United States has not been determined.

Currently, the only effective means to eliminate ALB is to remove infested trees and destroy them by chipping or burning. To prevent further spread of the insect, quarantines are established to avoid transporting infested

trees and branches from the area. Early detection of infestations and rapid treatment response are crucial to successful eradication of the beetle.

The ALB has one generation per year. Adult beetles are usually present from July to October, but can be found later in the fall if temperatures are warm. Adults usually stay on the trees from which they emerged or they may disperse short distances to a new host to feed and reproduce. Each female usually lays 35-90 eggs during her lifetime. Some are capable of laying more than that. The eggs hatch in 10-15 days. The larvae feed under the bark in the living tissue of the tree for a period of time and then bore deep into the wood where they pupate. The adults emerge from pupation sites by boring a tunnel in the wood and creating a round exit hole in the tree.

For more information about Asian longhorned beetle in the United States, visit these U.S. Department of Agriculture Web sites:

www.na.fs.fed.us/fhp/alb/

www.aphis.usda.gov/plant_health/plant_pest_info/asian_lhb/index.shtml

If you suspect an Asian longhorned beetle infestation, please collect an adult beetle in a jar, place the jar in the freezer, and immediately notify any of these officials or offices in your State:

State Department of Agriculture:

- State Plant Regulatory Official
- State Entomologist

U.S. Department of Agriculture:

- Animal and Plant Health Inspection Service,
Plant Protection and Quarantine
- Forest Service

County Cooperative Extension Office

State Forester or Department of Natural Resources

Asian Longhorned Beetle

WHAT TO LOOK FOR:



1. Adult beetles. Individuals are $\frac{3}{4}$ to $1\frac{1}{4}$ inches long, with jet black body and mottled white spots on the back. The long antennae are $1\frac{1}{2}$ to $2\frac{1}{2}$ times the body length with distinctive black and white bands on each segment. The feet have a bluish tinge.



2. Oval to round pits in the bark. These egg-laying sites or niches are chewed out by the female beetle, and a single egg is deposited in each niche.



3. Oozing sap. In the summer, sap may flow from egg niches, especially on maple trees, as the larvae feed inside the tree.



4. Accumulation of coarse sawdust around the base of infested trees, where branches meet the main stem, and where branches meet other branches. This sawdust is created by the beetle larvae as they bore into the main tree stem and branches.



5. Round holes, $\frac{3}{8}$ inch in diameter or larger, on the trunk and on branches. These exit holes are made by adult beetles as they emerge from the tree.

Photo Sources:

USDA Forest Service

USDA Animal and Plant Health Inspection Service

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Pest Alert

United States
Department of Agriculture
Forest Service
Northeastern Area
State and Private Forestry
NA-PR-03-12
March 2012

Beech Bark Disease

Beech bark disease (BBD) has been deforming and killing American beech (*Fagus grandifolia*) trees in the Eastern United States since the 1930s. A beech scale insect (*Cryptococcus fagisuga*) first attacks tree bark, creating a wound that provides an entryway for two different fungi (*Neonectria coccinea* var. *faginata* and *Neonectria galligena*) to invade the tree. The fungus grows and kills the living tissue under the outer bark, resulting in cankers that can eventually girdle and kill a tree. Trees that survive may become disfigured.

Beech scale was accidentally introduced into Nova Scotia in 1890 on ornamental beech trees imported from Europe. By the early 1930s, the scale and the *Neonectria* fungus were found throughout the Maritime Provinces in Eastern Canada and in localized areas of Maine. Since then, BBD has affected New England, New York, New Jersey, Pennsylvania, and West Virginia (figure 1). Localized infestations have been found in Virginia, North Carolina, Tennessee, Ohio, Michigan, and Ontario.

The Beech Scale

Beech scales are yellow, soft-bodied insects that are 0.5-1.0 mm long as adults (figure 2). They feed only on American and European (*Fagus sylvatica*) beech trees.

The beech scale has one generation per year. Adults lay eggs on the bark in midsummer and then die. Eggs hatch from late summer until early winter. The immature insects, called first-stage nymphs, have functional antennae and legs and can move to new locations. Nymphs are also spread by wind, birds, and humans that move firewood that harbors nymphs. When a nymph finds a suitable host tree, it starts feeding. First-stage nymphs develop into legless second-stage nymphs that don't move. They secrete the "white wax" that eventually covers their bodies through adulthood (figure 3). The second-stage nymphs overwinter and molt into adults the following spring.

Trees newly infested with scale have small spots or patches of white wax on the trunk, usually on rough bark surfaces. As the scale population builds, large branches and the entire trunk of the tree may become covered with white wax.

The Fungus

The fungi produce fruiting bodies that are tiny, bright red, and lemon shaped in clusters on the bark (figure 4). The mature spores are released in the fall if there's enough moisture. Tarry spots (dead tissue that oozes reddish brown fluid) is also an early symptom that trees are infected with *Neonectria* species (figure 5).

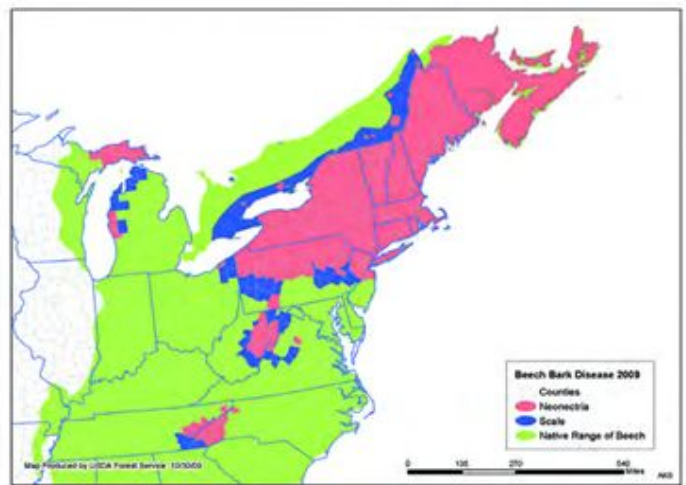


Figure 1.—Distribution map of beech bark disease as of 2009.



Figure 2.—The scale insect.



Figure 3.—White waxy covering.

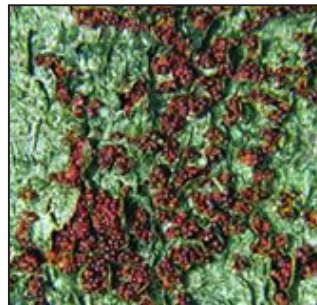


Figure 4.—Fungal fruiting bodies.

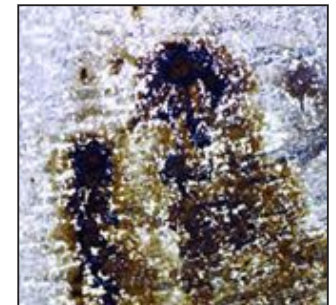


Figure 5.—Tarry spots on the bark.

Additional Symptoms

On some dying trees, the leaves do not fully form, which makes the tree crowns look thin. The leaves stay on the trees, but become yellowish as summer progresses. Another symptom of BBD is the distinct orange color when the outer bark is cut away where *Neonectria* is actively invading the bark. Other symptoms include noticeable cracking of the bark on the tree trunk; cankers; and deformed, defective wood. Other insects and fungi quickly invade the wood killed by beech bark disease. This weakens the tree and makes it more likely to break during wind events, which is called “beech snap” (figure 6).

Three Phases of BBD

- *Advancing Front:* Trees are infested with beech scale but not yet infected by *Neonectria*. Beech scale can be present for several years before *Neonectria* infection occurs.
- *Killing Front:* Beech scale populations are high, *Neonectria* infection is abundant, and tree mortality is heavy.
- *Aftermath Forest:* These areas have experienced the first wave of beech mortality. They typically have smaller beech scale populations. Residual beech trees are mostly defective and declining. Smaller beech trees usually sprout from the roots and can form dense thickets that are highly susceptible to the disease. Larger trees that remain and appear to have escaped BBD are thought to be resistant to BBD.

Control and Management

Some scale insects may die due to weather conditions, but it is generally not enough to reduce the impacts of this disease. There are few controls for beech bark disease. One important control method is preventing the movement of nursery stock or other materials that may harbor the beech scale insect. Insecticides, oils, and mechanical controls can be used on high-value ornamental trees, but they are labor intensive and not always successful.

Controlling BBD in a forest setting is costly. Using biological controls—the ladybird beetle (*Chilocorus stigma*) that preys on the beech scale insect and a fungus (*Nematogonum ferrugineum*) that parasitizes the *Neonectria* fungus—is not a realistic option because their impacts are limited and they have not been shown to effectively control BBD.



Figure 6.—Beech snap.

Using silvicultural methods to manage tree species composition, size, age, and vigor may reduce the development of BBD in a forest. It is important to use harvesting methods that minimize root injury of susceptible trees to reduce root sprouting. Retaining beech trees that are free of the scale and/or fungal infection in a forest provides a source of BBD-resistant seeds and sprouts, which helps increase the proportion of healthy, resistant beech trees.

Another developing approach to restoring and regenerating American beech is to identify, graft, and propagate BBD-resistant trees and develop seed orchards and enhanced seed production areas from these resistant trees. These seed and tree sources can potentially be used to increase the proportion of healthy, resistant beech in a forest.

Using a combination of silvicultural methods and resistant seed stock may allow healthy American beech to remain a valuable component of North American forests throughout its natural range.

Photographs:

Figure 2: Joseph O'Brien, USDA Forest Service, Bugwood.org

Figure 3: Karen Felton, USDA Forest Service

Figure 4: Andrej Kunca, National Forest Centre - Slovakia, Bugwood.org

Figure 5: Joseph O'Brien, USDA Forest Service, Bugwood.org

Figure 6: Joseph O'Brien, USDA Forest Service, Bugwood.org

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i-Tree Eco

What Is i-Tree Eco?

i-Tree Eco version 6 is a flexible software application designed to use data collected in the field from single trees, complete inventories, or randomly located plots throughout a study area along with local hourly air pollution and meteorological data to quantify forest structure, environmental effects, and value to communities.

Eco v6 is a model that uses tree measurements and other data to estimate ecosystem services and structural characteristics of urban or rural forest. Eco is a complete package that provides:

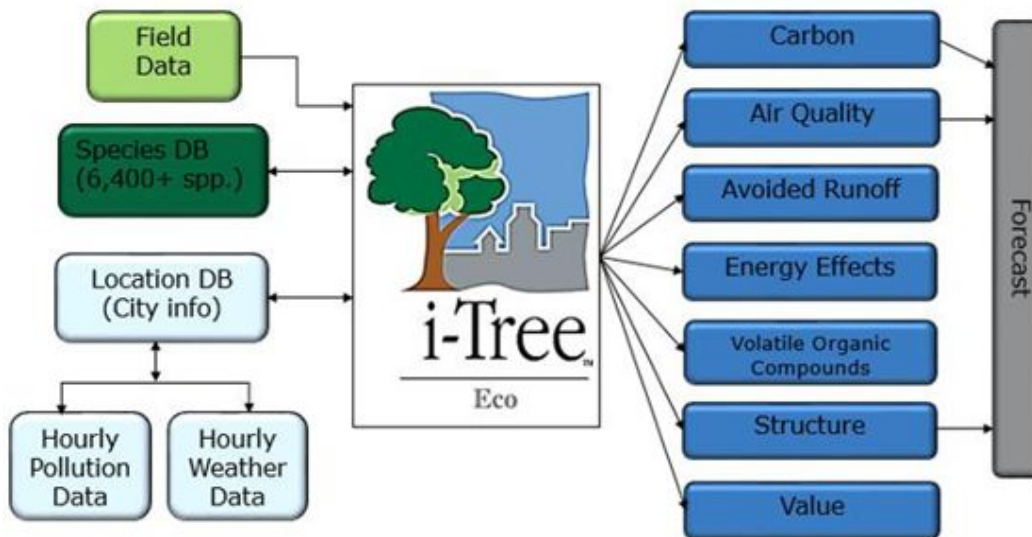
- **Sampling and data collection protocols** - For plot-based sample projects, total population estimates, and standard error of estimates are calculated based on sampling protocols. For complete inventories, eco calculates values for each tree.
- **Flexible data collection options** - Use the mobile data collection system with web-enabled smartphones and tablets, or traditional paper sheets.
- **Automated processing** - A central computing engine that makes estimates of the forest effects based on peer-reviewed scientific equations to predict environmental and economic benefits.
- **Reports** - Summary reports that include charts, tables, and a written report.



Eco Model Basics

How Eco Works

Tree measurements and field data are entered into the Eco application either by web form or by manual data entry; they are merged with local preprocessed hourly weather and air pollution concentration data. These data make it possible for the model to calculate structural and functional information using a series of scientific equations or algorithms.



Arbor Day Foundation

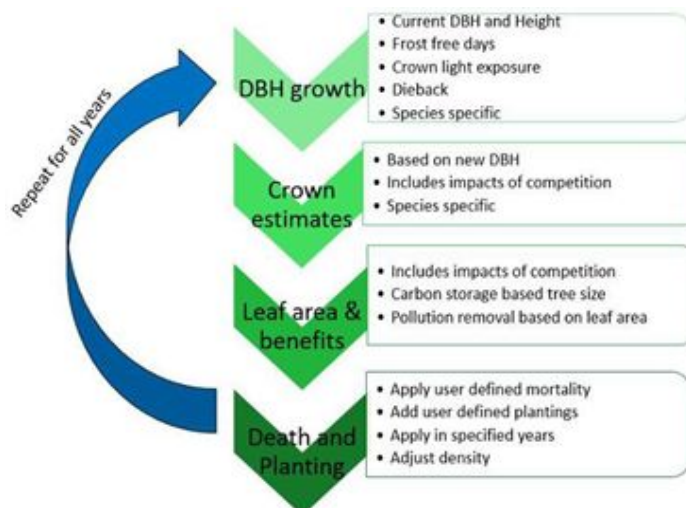


ESF

State University of New York
College of Environmental Science and Forestry

Forecast Modeling

The new forecast module can be run after Eco results are generated. Forecast uses structural estimates, environmental and location variables, species characteristics along with growth and mortality rates to forecast future tree DBH and crown size. Forecasted benefits such as pollution removal, carbon storage and carbon sequestration are then estimated based on the projected tree growth and leaf area. Tree planting inputs, pest and disease impacts, and storm effects can be modeled also.



i-Tree Eco Is Currently Designed To Provide Estimates Of:

- **Urban forest structure** - Species composition, number of trees, tree density, tree health, etc.
- **Pollution reduction** - Hourly amount of pollution removed by the urban forest, and associated percent air quality improvement throughout a year. Pollution removal is calculated for ozone, sulfur dioxide, nitrogen dioxide, carbon monoxide and particulate matter 2.5 (<2.5 microns).
- **Public health impacts** – Health incidence reduction and economic benefit based on the effect of trees on air quality improvement for the United States only.
- **Carbon** - Total carbon stored and net carbon annually sequestered by the urban forest.
- **Energy Effects** - Effects of trees on building energy use and consequent effects on carbon dioxide emissions from power plants.
- **Avoided runoff** - Yearly avoided runoff attributed to trees summarized by tree species or strata.
- **Forecasting** - Models tree and forest growth over time; considers factors like mortality rates, tree planting inputs, pest and disease impacts and storm effects. Some ecosystem services including carbon and pollution benefits are also forecasted.
- **Bioemissions** - Hourly urban forest volatile organic compound emissions and the relative impact of tree species on net ozone and carbon monoxide formation throughout the year.
- **Values** - Compensatory value of the forest, as well as the estimated economic value of ecosystem services.
- **Potential pest impacts** - based on host susceptibility, pest/disease range and tree structural value.

Not all reporting options may be available depending on project configuration, data options, and project country location.

How Can I Get More Information About i-Tree Eco?

- Visit the i-Tree website at www.itreetools.org
- Register online and download the free software
- Contact i-Tree support staff at info@itreetools.org



Arbor Day Foundation



State University of New York
College of Environmental Science and Forestry



Board Agenda Item
March 5, 2019

10:20 a.m.

Matters Presented by Board Members

11:10 a.m.

CLOSED SESSION:

- (a) Discussion or consideration of personnel matters pursuant to Virginia Code § 2.2-3711(A) (1).
- (b) Discussion or consideration of the acquisition of real property for a public purpose, or of the disposition of publicly held real property, where discussion in an open meeting would adversely affect the bargaining position or negotiating strategy of the public body, pursuant to Virginia Code § 2.2-3711(A) (3).
- (c) Consultation with legal counsel and briefings by staff members or consultants pertaining to actual or probable litigation, and consultation with legal counsel regarding specific legal matters requiring the provision of legal advice by such counsel pursuant to Virginia Code § 2.2-3711(A) (7).
 - 1. *Mateusz Fijalkowski v. M. Wheeler, S. Adcock, S. Blakely, R. Bronte-Tinkew, C. Clark, J. Grande, R. Jakowicz, L. Labarca, L. McNaught, W. Mulhern, M. Zesk, Sean Brooks, and American Pool, Inc.*, Case No. 1:18-cv-492 (E.D. Va.)
 - 2. *Joseph A. Glean v. Board of Supervisors, Michael J. McGrath, and Christopher J. Pietsch*, Case No. 2019-01067 (Fx. Co. Cir. Ct.)
 - 3. *Bruce & Tanya and Associates, Inc. v. Board of Supervisors of Fairfax County, Virginia, Fairfax County, Virginia, Jack Weyant, Director of the Department of Code Compliance, Virginia Department of Transportation, and Stephen Brich, Commissioner of Highways for the Commonwealth of Virginia*, Case Nos. 19-1151L and 19-1153 (Fourth Cir.) (Braddock, Lee, Mount Vernon, and Springfield Districts)
 - 4. *Patricia Tomasello and Martin McMahon v. Jamie Greenzweig, Hasina Lewis, and Michael T. Reilly*, Case No. 1:19-cv-00384. (U.S. Dist. Ct. for the District of Columbia)
 - 5. *Eileen M. McLane, Fairfax County Zoning Administrator v. Yun Su Sheue and Hao Kang Chen*, Case No. CL-2009-0014559 (Fx. Co. Cir. Ct.) (Braddock District)
 - 6. *Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. David M. Frutchey*, Case No. GV19-001154 (Fx. Co. Gen. Dist. Ct.) (Hunter Mill District)
 - 7. *Leslie B. Johnson, Fairfax County Zoning Administrator v. PNT Enterprises LLC*, Case No. CL-2018-0013736 (Fx. Co. Cir. Ct.) (Lee District)
 - 8. *Leslie B. Johnson, Fairfax County Zoning Administrator v. James L. Price*, Case No. CL-2018-0017871 (Fx. Co. Cir. Ct.) (Lee District)

9. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Kai Vutipawat and Lynn Vutipawat*, Case No. CL-2018-0017118 (Fx. Co. Cir. Ct.) (Lee District)
10. *Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. Jonathan Clark and Carolyn Clark*, Case No. CL-2017-0016073 (Fx. Co. Cir. Ct.) (Mason District)
11. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Kashif H. Waheed and Anahita Ada*, Case No. CL-2018-0015884 (Fx. Co. Cir. Ct.) (Mount Vernon District)
12. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Dale G. Hancock and Mary C. Hancock*, Case No. CL-2018-0010669 (Fx. Co. Cir. Ct.) (Mount Vernon District)
13. *Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. Tina Tafoya*, Case No. CL-2019-0001753 (Fx. Co. Cir. Ct.) (Mount Vernon District)
14. *Elizabeth Perry, Property Maintenance Code Official for Fairfax County, Virginia v. Patricia Joyce Saltess*, Case No. CL-2019-0001906 (Fx. Co. Cir. Ct.) (Mount Vernon District)
15. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Miguel Romero and Nora A. Romero-Romero*, Case No. GV18-015244 (Fx. Co. Gen. Dist. Ct.) (Mount Vernon District)
16. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Haiyun Ratliff*, Case No. GV19-003966 (Fx. Co. Gen. Dist. Ct.) (Mount Vernon District)
17. *Leslie B. Johnson, Fairfax County Zoning Administrator v. Amy Junhong Long*, Case No. CL-2013-0005065 (Fx. Co. Cir. Ct.) (Providence District)

To be deferred to 3/19/19 at 3:00 p.m.

Board Agenda Item
March 5, 2019

3:30 p.m.

Public Hearing on SE 2018-SU-016 (LB Franklin Farm LLC) to Permit a Restaurant with Drive-Through, Located on Approximately 36,900 Square Feet of Land Zoned PDH-2 and WS (Sully District)

This property is located at 13360 Franklin Farm Road, Herndon, 20171. Tax Map 35-1 ((4)) (22) 1

PLANNING COMMISSION RECOMMENDATION:

The February 20, 2019 Planning Commission meeting was cancelled due to inclement weather. This application was rescheduled to March 14, 2019. The Planning Commission recommendation will be forwarded subsequent to decision.

ENCLOSED DOCUMENTS:

Planning Commission Verbatim Excerpt and Staff Report available online at:
<https://www.fairfaxcounty.gov/planning-zoning/zoning-application-board-packages-fairfax-county-board-supervisors>

STAFF:

Tracy Strunk, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ)
Zach Fountain, Planner, DPZ

**To be deferred to 3/19/19
at 3:00 p.m.**

Board Agenda Item
March 5, 2019

3:30 p.m.

Public Hearing on PCA 2013-MV-001/CDPA 2013-MV-001 (Wesley Huntington Landlord, LLC) to Amend the Uses, Proffers and Conceptual Development Plan for RZ 2013-MV-001 Previously Approved for Mixed-Use Development, to Permit Mixed-Use Development and Associated Modifications to Proffers and Site Design with an Overall Floor Area Ratio of 2.99, Located on Approximately 1.04 Acres of Land Zoned PRM (Mount Vernon District)

This property is located in the S.E. quadrant of the intersection of Biscayne Drive and Huntington Avenue. Tax Map 83-1 ((8)) 92A, 92B, 93A, 93B and 94A

PLANNING COMMISSION RECOMMENDATION:

The February 20, 2019 Planning Commission meeting was cancelled due to inclement weather. This application was rescheduled to March 14, 2019. The Planning Commission recommendation will be forwarded subsequent to decision.

ENCLOSED DOCUMENTS:

Planning Commission Verbatim Excerpt and Staff Report available online at:
<https://www.fairfaxcounty.gov/planning-zoning/zoning-application-board-packages-fairfax-county-board-supervisors>

STAFF:

Tracy Strunk, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ)
Jay Rodenbeck, Planner, DPZ

To be deferred to 3/19/19 at 3:00 p.m.

Board Agenda Item
March 5, 2019

3:30 p.m.

Public Hearing on PCA 84-C-048 (Prince Towne, LLC) to Amend the Proffers for RZ 84-C-048 Previously Approved for Residential Development to Permit Residential Development at a Density of 1.84 Dwelling Units Per Acre with Associated Modifications to Proffers and Site Design, Located on Approximately 4.9 Acres of Land Zoned R-2 (Hunter Mill District)

This property is located on the N.W. side of West Ox Road, approximately 600 feet E. of Fairfax County Parkway. Tax Map 25-4 ((14) 85, 86 and 87

PLANNING COMMISSION RECOMMENDATION:

The February 20, 2019 Planning Commission meeting was cancelled due to inclement weather. This application was rescheduled to March 14, 2019. The Planning Commission recommendation will be forwarded subsequent to decision.

ENCLOSED DOCUMENTS:

Planning Commission Verbatim Excerpt and Staff Report available online at:
<https://www.fairfaxcounty.gov/planning-zoning/zoning-application-board-packages-fairfax-county-board-supervisors>

STAFF:

Tracy Strunk, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ)
Harold Ellis, Planner, DPZ

Board Agenda Item
February 19, 2019

3:30 p.m.

Public Hearing on RZ 2016-DR-027 (Pomeroy/Clark I, LLC) to Rezone from I-5 and PDC to PDH-20 to Permit Mixed-Use Development with an Overall Floor Area Ratio of 1.09 and a Density of 25.62 Dwelling Units Per Acre Including Bonus Density Associated with ADU/WDU and Approval of the Conceptual Development Plan, Located on Approximately 43.76 Acres of Land (Dranesville District) (Concurrent with PCA-C-637-4)

and

Public Hearing on PCA-C-637-4 (Pomeroy/Clark I, LLC) to Delete Land Area from RZ-C-637, Located on Approximately 37.70 Acres of Land (Dranesville District) (Concurrent with RZ 2016-DR-027)

This property is located in the N.W. quadrant of the intersection of Sunrise Valley Drive and Frying Pan Road, Tax Map 15-4 ((1)) 25 and 26A.

This property is located in the N.W. quadrant of the intersection of Sunrise Valley Drive and Frying Pan Road, Tax Map 15-4 ((1)) 26A.

The Board of Supervisors deferred this public hearing at the November 20, 2018 meeting until January 22, 2019 at 3:30 p.m.; at which time it was deferred again until March 5, 2019 at 3:30 p.m.

PLANNING COMMISSION RECOMMENDATION:

On November 1, 2018 the Planning Commission voted 11-0 (Commissioner Hart was absent from the meeting) to recommend the following actions to the Board of Supervisors:

- Approval of RZ 2016-DR-027 and the associated Conceptual Development Plan, subject to the execution of proffered conditions dated October 12, 2018;
- Approval of PCA-C-637-04;
- Modification of Par. 2 of Sect. 6-407 of the Zoning Ordinance (ZO) to allow a privacy yard less than 200 square feet for single family attached dwellings in favor of that shown on the Conceptual/Final Development Plan (CDP/FDP);

Board Agenda Item
February 19, 2019

- Modification of Par. 4 of Sect. 11-202 of the ZO to permit a reduction in the minimum required distance of 40-feet for a loading space in proximity to a drive aisle for multi-family dwellings in favor of that shown on the CDP/FDP;
- Modification of Par. 4 of Section 11-203 of the ZO of the required multi-family dwelling loading space requirement to that shown on the CDP/FDP;
- Modification of Par. 2 of Sect. 11-302 of the ZO to allow private streets to exceed 600-foot maximum length in favor of that shown on the CDP/FDP;
- Modification of Par. 10 of Sect. 11-102 of the Fairfax County ZO to permit driveway parking in front of garage parking (i.e, tandem parking) for multifamily 2-over-2 stacked dwellings as shown on the CDP/FDP;
- Modification of Par. 1 of Sect. 13-305 of the ZO to waive internal transitional yard screening and barrier requirements within PDH District in favor of that shown on the CDP/FDP;
- Waiver of Par. 3B of Sect. 17-201 of the ZO requiring inter-parcel access to adjacent parcels in favor of that shown on the CDP/FDP;
- Modification of Par. 4 of Sect. 17-201 of the ZO requiring further dedication, construction or widening of existing roads in favor of that shown on the CDP/FDP; and
- Modification of Par. 2 of Sect. 17-201 of the ZO to modify the requirement of on-road Bicycle Lane on Sunrise Valley Drive and Frying Pan Road in favor of the 10-foot wide shared use path as shown on the CDP/FDP.

In a related action, the Planning Commission voted 11-0 (Commissioner Hart was absent from the meeting) to approve FDP 2016-DR-027, subject to the development conditions dated October 17, 2018 and subject to the approval of RZ 2016-DR-027 by the Board of Supervisors.

ENCLOSED DOCUMENTS:

Planning Commission Verbatim Excerpt and Staff Report available online at:
<https://www.fairfaxcounty.gov/planning-zoning/zoning-application-board-packages-fairfax-county-board-supervisors>

STAFF:

Tracy Strunk, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ)
Kelly Atkinson, Planner, DPZ

Board Agenda Item
March 5, 2019

3:30 p.m.

Public Hearing on RZ 2017-DR-012 (Pomeroy Companies, Inc/Pomeroy Investments, Inc., TR) to Rezone from R-1 and I-5 to PRM to Permit Mixed-Use Development with an Overall Floor Area Ratio of 1.15 Including Density Associated with ADU/WDU, Located on Approximately 39.42 Acres of Land (Dranesville District) (Concurrent with PCA-C-637-05)

and

Public Hearing on PCA-C-637-05 (Pomeroy Investments Inc., TR) to Delete Land Area from RZ-C-637 Previously Approved for Industrial Uses, Located on Approximately 37.20 Acres of Land Zoned I-5 (Dranesville District) (Concurrent with RZ 2017-DR-012)

This property is located in the N.E. corner of the intersection of Sunrise Valley Drive and Frying Pan Road. Tax Map 15-4 ((1)) 26B and 24-2 ((1)) 5

This property is located in the N.E. corner of the intersection of Sunrise Valley Drive and Frying Pan Road. Tax Map 15-4 ((1)) 26B

PLANNING COMMISSION RECOMMENDATION:

On January 30, 2019 the Planning Commission voted 12-0 to defer decision only for RZ 2017-DR-012 and PCA-C-637-05 to a date certain of February 27, 2019. On February 27, 2019, the Planning Commission voted 12-0 to further defer decision only for RZ 2017-DR-012 and PCA-C-637-05 to a date certain of April 3, 2019. The Planning Commission recommendation will be forwarded following decision.

ENCLOSED DOCUMENTS:

Planning Commission Verbatim Excerpt and Staff Report available online at:
<https://www.fairfaxcounty.gov/planning-zoning/zoning-application-board-packages-fairfax-county-board-supervisors>

STAFF:

Tracy Strunk, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ)
Kelly Atkinson, Planner, DPZ

Board Agenda Item
March 5, 2019

4:00 p.m.

Public Hearing on SE 2018-LE-009 (Bila Mawardi Hamdael/Bila's Child Care) to Permit a Home Child Care Facility, Located on Approximately 9,224 Square Feet of Land Zoned PDH-4 and NR (Lee District)

This property is located at 6508 Wynema Court, Alexandria, 22315. Tax Map 99-2 ((10)) (2) 94

PLANNING COMMISSION RECOMMENDATION:

On January 16, 2019, the Planning Commission voted 12-0 to recommend to the Board of Supervisors approval of SE 2018-LE-009, subject to the proposed development conditions dated December 3, 2018.

ENCLOSED DOCUMENTS:

Planning Commission Verbatim Excerpt and Staff Report available online at:
<https://www.fairfaxcounty.gov/planning-zoning/zoning-application-board-packages-fairfax-county-board-supervisors>

STAFF:

Tracy Strunk, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ)
Daniel Creed, Planner, DPZ

Board Agenda Item
March 5, 2019

4:00 p.m.

Public Hearing to Consider Adopting an Ordinance Expanding the Springdale Residential Permit Parking District, District 33 (Mason District)

ISSUE:

Public Hearing to consider a proposed amendment to Appendix G, of *The Code of the County of Fairfax, Virginia* (Fairfax County Code), to expand the Springdale Residential Permit Parking District (RPPD), District 33.

RECOMMENDATION:

The County Executive recommends that the Board adopt an amendment (Attachment I) to Appendix G, of the Fairfax County Code, to expand the Springdale RPPD, District 33.

TIMING:

On February 5, 2019, the Board authorized a Public Hearing to consider the proposed amendment to Appendix G, of the Fairfax County Code, to take place on March 5, 2019, at 4:00 p.m.

BACKGROUND:

Section 82-5A-4(b) of the Fairfax County Code, authorizes the Board to establish or expand an RPPD in any residential area of the County if: (1) the Board receives a petition requesting establishment or expansion of an RPPD that contains signatures representing at least 60 percent of the eligible addresses of the proposed District and representing more than 50 percent of the eligible addresses on each block of the proposed District, (2) the proposed District contains a minimum of 100 contiguous or nearly contiguous on-street parking spaces 20 linear feet in length per space, unless the subject area is to be added to an existing district, (3) 75 percent of the land abutting each block within the proposed District is developed residential, and (4) 75 percent of the total number of on-street parking spaces of the petitioning blocks are occupied, and at least 50 percent of those occupied spaces are occupied by nonresidents of the petitioning blocks, as authenticated by a peak-demand survey. In addition, an application fee of \$10 per petitioning address is required for the establishment or expansion of an RPPD. In the case of an amendment expanding an existing District, the foregoing provisions apply only to the area to be added to the existing District.

Board Agenda Item
March 5, 2019

On October 25, 2018, a peak parking demand survey was conducted for the requested area. The results of this survey verified that the designated block face met or exceeded the requirements to qualify for RPPD inclusion according to Section 82-5A-4(b) of the Fairfax County Code. All other requirements to expand the RPPD have been met.

FISCAL IMPACT:

The cost of sign installation is estimated at \$300 to be paid from Fairfax County Department of Transportation funds.

ENCLOSED DOCUMENTS:

Attachment I: Proposed Amendment to the Fairfax County Code
Attachment II: Map Depicting Proposed Limits of RPPD Expansion

STAFF:

Tom Biesiadny, Director, Fairfax County Department of Transportation (FCDOT)
Eric Teitelman, Chief, Capital Projects and Traffic Engineering Division, FCDOT
Neil Freschman, Chief, Traffic Engineering Section, FCDOT
Maria Turner, Sr. Transportation Planner, FCDOT
Charisse Padilla, Transportation Planner, FCDOT

ASSIGNED COUNCIL:

Marc E. Gori, Assistant County Attorney

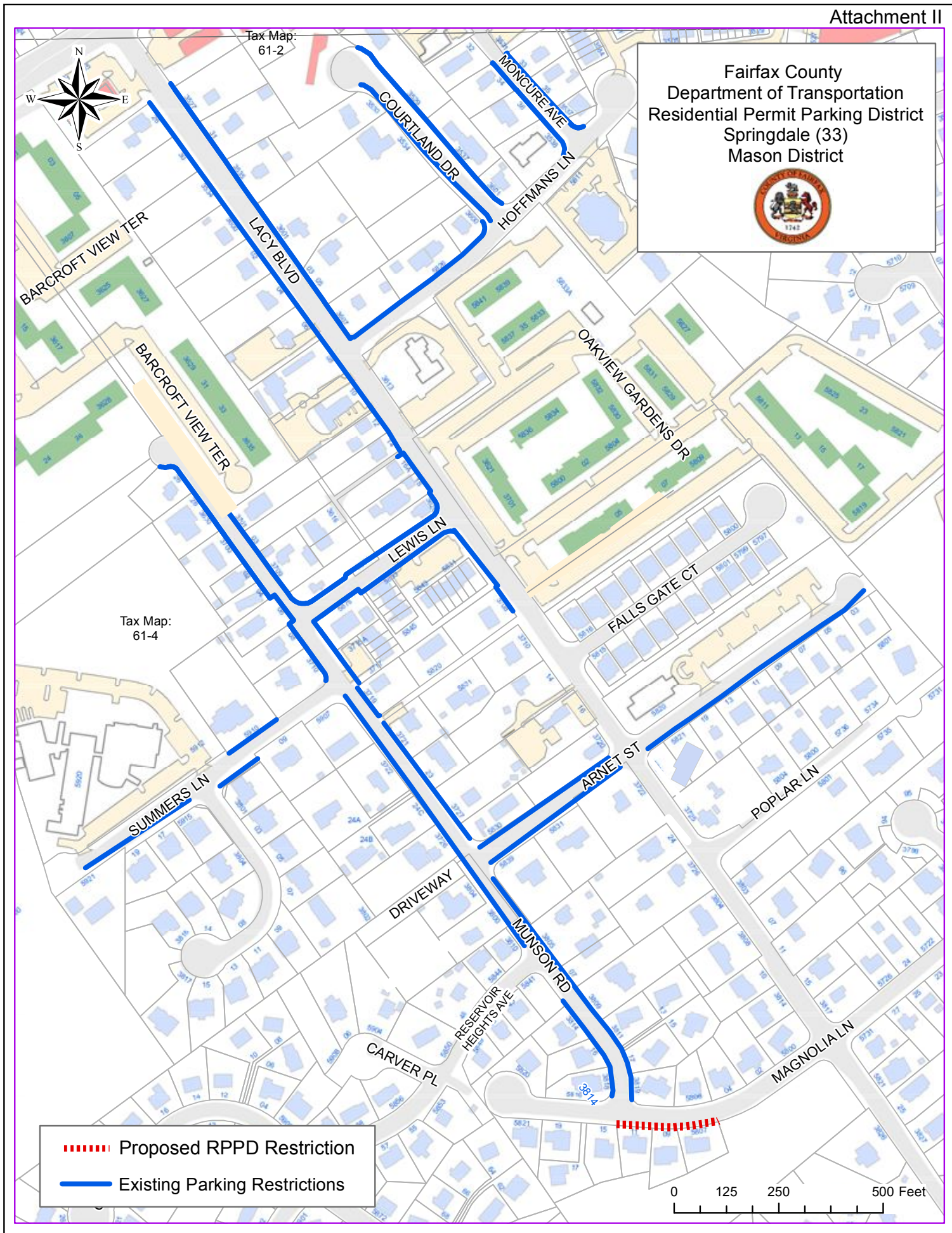
Proposed Amendment

Amend *The Code of the County of Fairfax, Virginia*, by amending the following street descriptions in Appendix G-33, Section (b), (2), Springdale Residential Permit Parking District, in accordance with Article 5A of Chapter 82:

Magnolia Lane (Route 1869):

From Munson Road to the eastern property boundary of 5807 Magnolia

Lane; south side only



Board Agenda Item
March 5, 2019

4:00 p.m.

Public Hearing for the Conveyance of a Portion of County-Owned Property to the City of Manassas Park, Virginia

ISSUE:

Public hearing regarding the conveyance of a portion of County-owned property located at 8599 Centreville Road to the City of Manassas Park.

RECOMMENDATION:

The County Executive recommends that the Board authorize staff to convey a portion of County-owned property to the City of Manassas Park.

TIMING:

On February 5, 2019, the Board authorized the advertisement of a public hearing on March 5, 2019 to convey a portion of County-owned property to the City of Manassas Park.

BACKGROUND:

The Counties of Fairfax, Loudoun, Fauquier and Prince William and the City of Alexandria own as tenants-in-common the Birmingham Green complex located at 8599 Centreville Road in the City of Manassas (Birmingham Green). This complex provides long-term care for indigent residents of the constituent municipalities, and consists of three facilities: the 180-bed Health Care Center that offers nursing and rehabilitation services, the 92-unit Willow Oaks Assisted Living facility and the 36-bed District Home Assisted Living. Although these facilities are located within the limits of the City of Manassas, the northern boundary of the campus borders the City of Manassas Park (Manassas Park) along Conner Drive.

Manassas Park and the Virginia Department of Transportation (VDOT) are partners in the Conner Drive Extension Project, VDOT Project Number U000-152-R76, which involves the re-paving of Conner Drive and the extension of the road west to connect with Route 28/Centreville Road. To bring Conner Drive into compliance with VDOT standards, Manassas Park needs the five municipal co-tenants to dedicate 15,937 square feet of the Birmingham Green property for public road purposes as well as ancillary storm drainage and utility easements. Manassas Park and VDOT have agreed to pay \$100,000 to the owners of Birmingham Green as compensation for the land rights. In turn, the five municipalities have consented to donate this consideration to Birmingham Green for application to the costs of a much-needed renovation of the Health Care Center.

Board Agenda Item
March 5, 2019

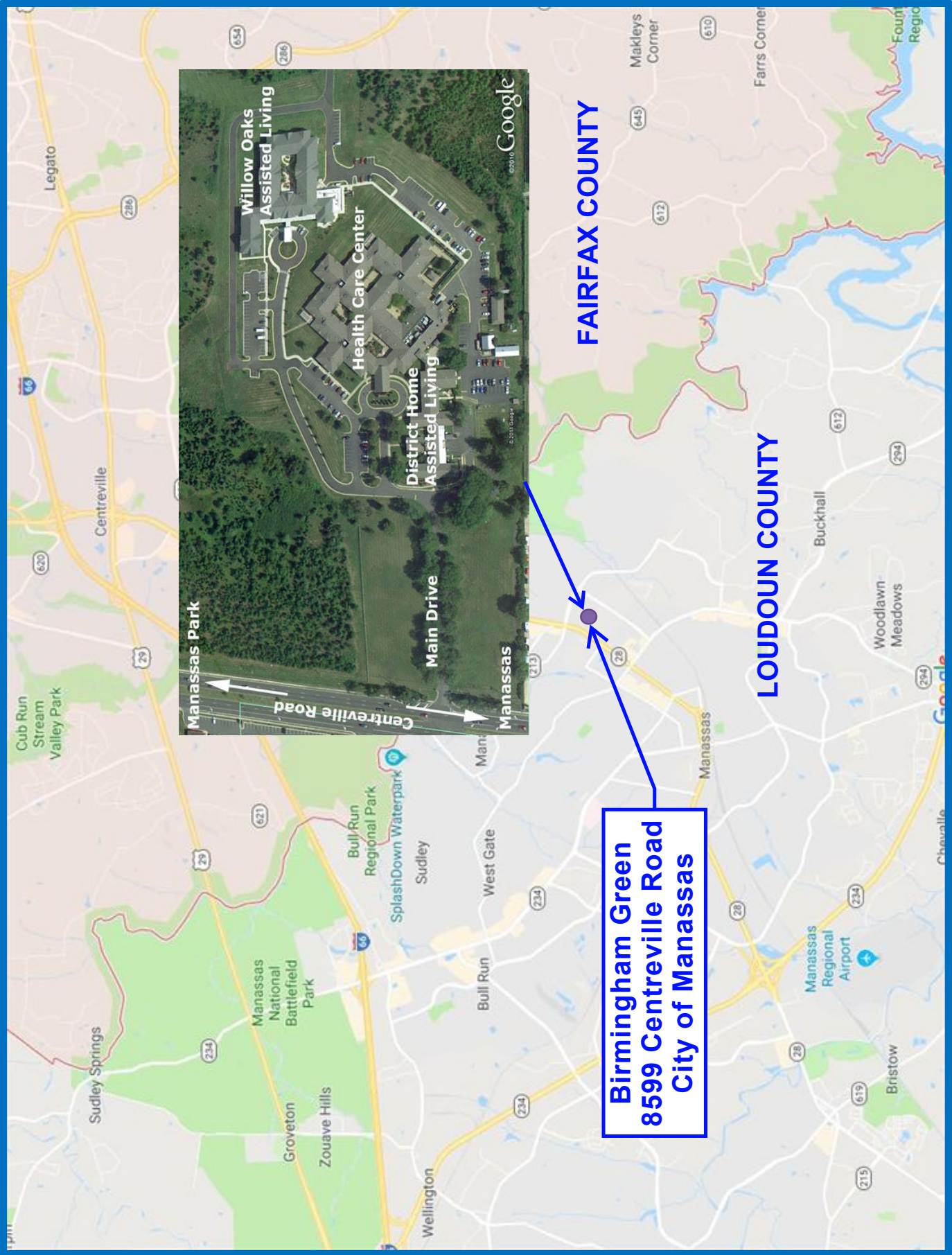
Staff recommends that the Board authorize staff to finalize all necessary documents to convey the property required for the Conner Drive Extension Project to Manassas Park.

FISCAL IMPACT:
None

ENCLOSED DOCUMENTS:
Attachment 1 – Location Map

STAFF:
Joseph M. Mondoro, Chief Financial Officer
José A. Comayagua, Director, Facilities Management Department
Mike Lambert, Assistant Director, Facilities Management Department

ASSIGNED COUNSEL:
Pamela K. Peltó, Assistant County Attorney, Office of the County Attorney



Board Agenda Item
March 5, 2019

4:00 p.m.

Public Hearing to Sell Board-Owned Property South of Spring Hill Road to Dominion Energy for an Electric Substation (Hunter Mill District)

ISSUE:

Public hearing to sell Board-owned property located south of Spring Hill Road within and along an existing utility easement to Dominion Energy.

RECOMMENDATION:

The County Executive recommends that the Board authorize staff to sell Board-owned property to Dominion Energy.

TIMING:

On November 20, 2018, Board authorized the advertisement of a public hearing on December 4, 2018, to sell Board-owned property to Dominion Energy. At the December 4, 2018 Board meeting, the public hearing was deferred to January 22, 2019 at 3:30 p.m.; at which time it was once again deferred to March 5, 2019, at 4:00 p.m.

BACKGROUND:

The Board of Supervisors is the recipient of two proffered parcels of land associated with two rezoning applications by CARS (RZ 2011-HM-013) and Sunburst (RZ 2011-HM-027); Tax Map Nos. 29-3 ((1)) 3B, and 29-3 ((1)) 2G, respectively. The two proffered parcels are dedicated for the construction of a Dominion Energy electric substation adjacent to an existing Dominion transmission line right-of-way. The Board of Supervisors is also the owner of the land under the existing transmission line. Virginia Dominion Energy has applied and received approval for the proposed substation (FDP 2011-HM-013 and FDP 2011-HM-027).

The parcels are currently vacant with an overhead utility improvement.

Per the proffer requirements, the County made written requests for the subject properties, in June 2018. CARS DB1, LLC, was notified that Proffer 64 of RZ 2011-HM-013 obligates the owner of the property to dedicate, in fee simple, an approximate 15,718 square foot area of the property for public use as a Dominion Energy substation. Likewise, 1587 Springhill Holdings, Inc., was notified that Proffer 65 of RZ 2011-HM-027 obligates the owner of the property to dedicate, in fee simple, an approximate 12,286 square foot area on the southern portion of the property for public use as a Dominion Energy substation.

Board Agenda Item
January 22, 2018

A deed of dedication and a Boundary Line Adjustment submission was made to the County and approved, creating a new subject parcel of approximately 0.95 acres, and to be shown as Tax Map No. 293 ((1)) 5A. Fairfax County staff and Virginia Dominion Energy have previously agreed to obtain a third-party appraisal that determined the value of the subject parcel to be \$3,875,520.00.

Because the parcel is not needed for right-of-way purposes, and since the small size of the parcel and its isolation from other public land make it unsuitable for any other public use, the County will serve the greater public benefit by conveying the parcel to Dominion Energy for redevelopment.

Virginia Code Ann. § 15.2-1800 requires a locality to hold a public hearing before it may dispose of any real property. Staff recommends that the Board convey the Spring Hill substation property to Virginia Dominion Energy at a price established by the third-party appraisal of \$3,875,520.00.

FISCAL IMPACT:

Proceeds from the sale to Dominion Energy of \$3,875,520 will be deposited into Fund 30010, General Construction and Contributions, and allocated to a project designated for public facilities in Tysons Corner.

ENCLOSED DOCUMENTS:

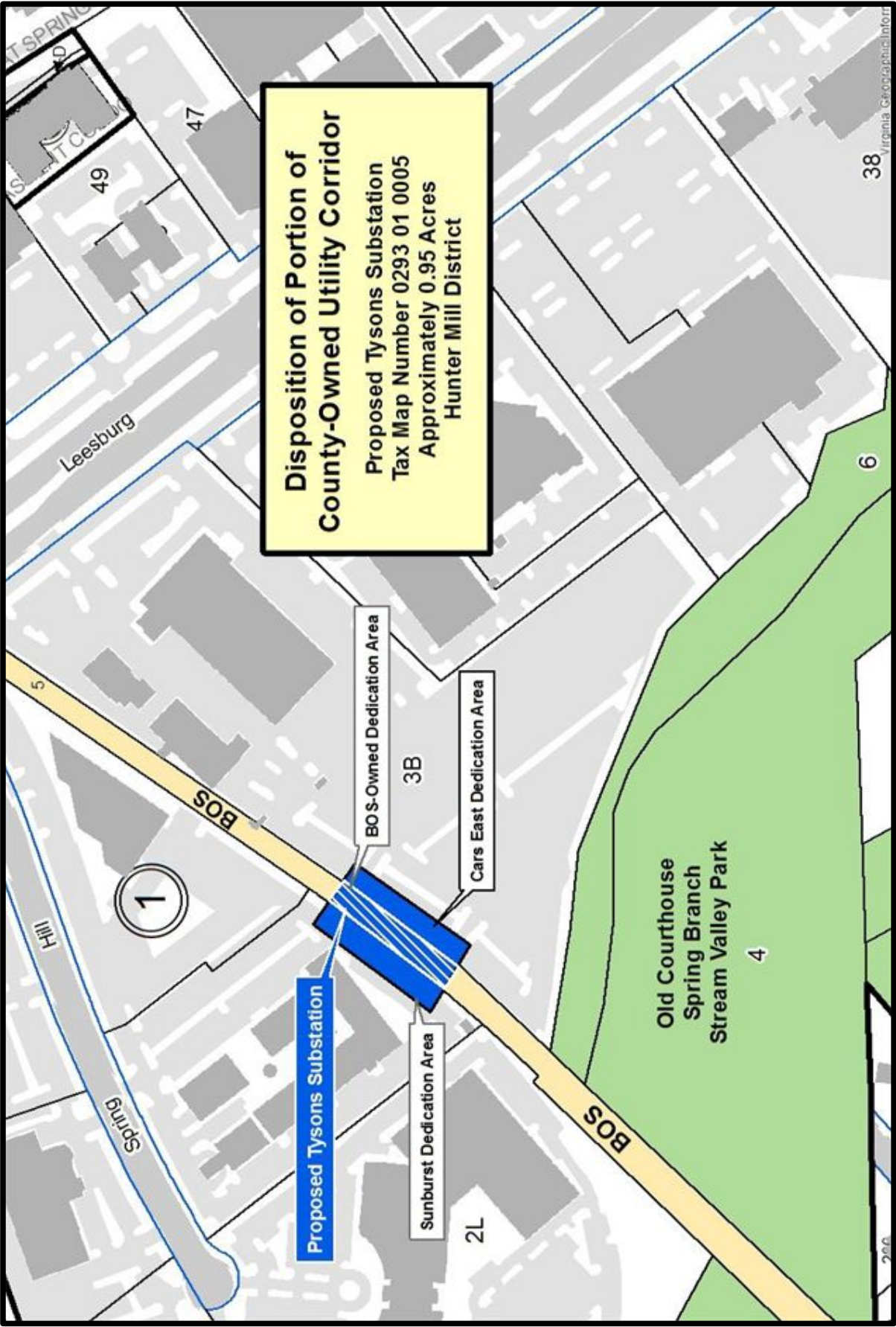
Attachment 1 – Location Map
Attachment 2 – Resolution

STAFF:

Barbara Bryon, Director, Office of Community Revitalization
Chris Caperton, Office of Community Revitalization

ASSIGNED COUNSEL:

Alan Weiss, Assistant County Attorney, Office of the County Attorney



ATTACHMENT 2 RESOLUTION

At a regular meeting of the Board of Supervisors of Fairfax County, Virginia, held in the Board Auditorium in the Fairfax County Government Center at Fairfax, Virginia, on Tuesday, March 5, 2019, at which a quorum was present and voting, the following resolution was adopted:

WHEREAS, the Board of Supervisors owns approximately 0.95 acres of land south of Spring Hill Road and west of Route 7, to be identified as Tax Map Parcel 293 ((1)) 5A, in Hunter Mill District,

WHEREAS, the County-owned property is not usable for County public use, and the County has no current or planned use for this parcel,

WHEREAS, the County and Purchaser have previously agreed to obtain a third-party appraisal that determined the value of the subject parcel to be \$3,875,520.00,

WHEREAS, the Board of Supervisors finds that it would be in the best interest of the residents of Fairfax County to convey in consideration of the appraised value the real property as described above to Purchaser.

NOW, THEREFORE, upon public hearing duly advertised according to law, it is **RESOLVED** that, in consideration of the agreed-upon third-party appraisal of the subject parcel of \$3,875,520.00, the County Executive is hereby authorized to execute all necessary documents to convey the real property described above to Purchaser.

A Copy Teste:

Catherine A. Chianese
Clerk to the Board of Supervisors

**To be deferred to 3/19/19
at 3:00 p.m.**

Board Agenda Item
March 5, 2019

4:30 p.m.

Public Hearing on RZ 2018-SU-023 (Pohanka Virginia Properties, LLC) to Rezone from C-8, HC and WS to C-8, HC and WS to Permit a Vehicle Sale, Rental and Ancillary Service Establishment with an Overall Floor Area Ratio of 0.11, Located on Approximately 7.29 Acres of Land (Sully District) (Concurrent with SEA 94-Y-023)

and

Public Hearing on SEA 94-Y-023 (Pohanka Virginia Properties, LLC) to Amend SE 94-Y-023 Previously Approved for Vehicle Sale, Rental and Ancillary Service to Modify Site and Development Conditions, Located on Approximately 13.97 Acres of Land Zoned C-8, HC and WS (Sully District) (Concurrent with RZ 2018-SU-023)

This property is located on the S. side of Lee Jackson Memorial Highway, fronting on this highway, Elmwood Street and Vernon Street between Elmwood Street and Walney Road. Tax Map 34-4 ((1)) 51 and 53

This property is located at 13901, 13909, 13911 and 13915 Lee Jackson Memorial Highway, Chantilly, 20151. Tax Map 34-4 ((1)) 049, 050, 50A, 51 and 53

PLANNING COMMISSION RECOMMENDATION:

The February 20, 2019 Planning Commission meeting was cancelled due to inclement weather. This application was rescheduled to March 14, 2019. The Planning Commission recommendation will be forwarded subsequent to decision.

ENCLOSED DOCUMENTS:

Planning Commission Verbatim Excerpt and Staff Report available online at:
<https://www.fairfaxcounty.gov/planning-zoning/zoning-application-board-packages-fairfax-county-board-supervisors>

STAFF:

Tracy Strunk, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ)
Kelly Atkinson, Planner, DPZ

Board Agenda Item
March 5, 2019

4:30 p.m.

Public Hearing on SE 2018-MA-008 (Trustees of Lincolnia United Methodist Church and Flor. D. Brea D/B/A Luca's Rainbow Bilingual Daycare Center) to Permit a Place of Worship with a Child Care Center with a Maximum of 25 Children, Located on Approximately 2.37 Acres of Land Zoned R-2 and HC (Mason District)

This property is located at 6335 Little River Turnpike, Alexandria, 22312. Tax Map 72-3 ((1)) 60.

PLANNING COMMISSION RECOMMENDATION:

On February 27, 2019, the Planning Commission voted 12-0 to recommend the following to the Board of Supervisors:

- Approval of SE 2018-MA-008, subject to the development conditions dated February 12, 2019;
- Approval of a waiver of Paragraph 1 of Section 13-202 of the Zoning Ordinance for the interior parking lot landscaping requirement in favor of the existing conditions; and
- Approval of a modification of Section 13-302 of the Zoning Ordinance for the transitional screening and barrier requirements along the eastern, southern, and western boundaries, in favor of the existing conditions as shown on the Special Exception Plat.

ENCLOSED DOCUMENTS:

Planning Commission Verbatim Excerpt and Staff Report available online at:
<https://www.fairfaxcounty.gov/planning-zoning/zoning-application-board-packages-fairfax-county-board-supervisors>

STAFF:

Tracy Strunk, Director, Zoning Evaluation Division, Department of Planning and Zoning (DPZ)
Zach Fountain, Planner, DPZ

4:30 p.m.

Public Hearing on a Proposed Zoning Ordinance Amendment Re: Article 6 – Density Provisions for the Reston PRC District

ISSUE:

The purpose of the proposed Zoning Ordinance amendment is to implement the updated Reston Master Plan. This amendment proposes changes to the density provisions set forth in Sect. 6-308 of the Zoning Ordinance, specifically for the Reston PRC District. The amendment proposes an increase in the maximum overall density permitted in the Reston PRC District to a number between the current 13 persons/acre up to 15 persons/acre. The amendment would also allow the Board to approve residential development up to 70 dwelling units per acre for certain high density residentially designated properties in the Reston PRC District that are located within the transit station areas (TSAs) and planned for “Mixed Use,” if the proposal is in accordance with the adopted Comprehensive Plan. In addition, other editorial revisions would be made to Sect. 6-308 for clarification and plain language.

PLANNING COMMISSION RECOMMENDATION:

On February 13, 2019, the Planning Commission voted 12-0 to recommend to the Board of Supervisors the following actions:

- Denial of the Zoning Ordinance Amendment titled Article 6, Density Provisions for the Reston PRC District, without prejudice to the topic of the PRC density cap being later revisited in conjunction with the Plan Amendment referenced below. Further, it is recommended that if possible, the Board of Supervisors consider withdrawing its authorization for this Zoning Ordinance Amendment prior to its advertised public hearing so that a Board of Supervisors public hearing need not be held at this time;
- That the Board of Supervisors direct staff to prepare a draft of a Comprehensive Plan Amendment for consideration for the work program, and authorization for advertising, as a resumption and completion of the Reston planning process which resulted in the 2014 and 2015 amendments, to be recoupled with the topic of the density cap in PRC. This new Plan Amendment would address the following items:
 - 1) Whether the Village Centers, or any of them, should have an upper limit on the number of anticipated residential units, less than 50 du/ac;

- 2) Clarification of Comprehensive Plan language describing Village Center mixed use and redevelopment, to confirm it is to apply only to those portions of the centers already developed with nonresidential uses, and not the Village Centers' stable residential areas;
- 3) Clarification of the 50+ dwelling unit/acre High Density Multifamily land use category, to confirm that it applies to capture the existing projects that have an existing density above 50 du/ac, and to clarify that it does not provide unlimited density to those sites; and
- 4) Inclusion of updated Comprehensive Plan language regarding historic resources, particularly any updates that are ready at this time, for sites less than 50 years old but deserving of consideration.

This Comprehensive Plan Amendment is recommended to be coupled with any appropriate adjustment to the PRC density cap, in recognition of any adjustment to the Village Centers;

- That the Board of Supervisors, in conjunction with the Hunter Mill District Supervisor, establish a broad-based citizen task force, including representatives from the community and industry, to review and develop a recommendation on the Comprehensive Plan Amendment, coupled with an evaluation and recommendation on appropriate modifications to the PRC density cap, and to report back to the Planning Commission and the Board of Supervisors with their recommendations; and
- That the non-substantive editorial amendments previously advertised with the Zoning Ordinance Amendment package be revisited in the context of the next set of minor editorial revisions.

RECOMMENDATION:

The County Executive recommendation will be provided at the March 5, 2019 public hearing.

TIMING:

Board's authorization to advertise – December 5, 2018; Planning Commission public hearing – January 23, 2019, at 7:00 p.m.; Planning Commission decision – February 13, 2019; Board's public hearing – March 5, 2019, at 4:30 p.m.

BACKGROUND:

To facilitate implementation of the updated Reston Master Plan, the proposed amendment is listed on the adopted 2018 Zoning Ordinance Amendment Work Program and proposes changes that would increase the maximum allowable persons per acre and residential densities in the transit station areas (TSAs) of the Reston PRC District, the only PRC District containing any TSA. The Reston Master Plan Special Study was initiated in 2009, in recognition of the changing pattern of land use and development over time in Reston, facilitated in large part by the planned arrival of Metrorail. The study concluded in 2015 and resulted in the Reston Master Plan being amended in two phases in 2014 and 2015. While not a central focus during the Special Study process, it has been periodically noted since 2007 that an amendment to the density provisions of the Reston PRC District in the Zoning Ordinance would be required to accommodate the long-term planned residential growth. Development in the Reston PRC District is quickly approaching the Zoning Ordinance's density limit of 13 persons/acre.

In addition, without the capability to develop over 50 dwelling units per acre in areas designated for high density residential development, certain properties located in the TSAs would be impeded from developing in accordance with the Reston Master Plan. The density amendment for the Reston PRC District has appeared on the Zoning Ordinance Amendment Work Program as a Priority 1 item since 2010.

Staff has conducted significant public outreach beginning in May of 2017 through the present, which including multiple public meetings, informational handouts and responses to inquiries, and the creation of a dedicated website.

Specifically, the changes include:

- 1) Increasing the maximum overall density permitted in the Reston PRC District from 13 up to 15 persons per acre of gross residential and commercial areas. The amendment will be advertised to allow the Board to consider any number between 13 and 15 persons/acre.
- 2) Allowing the Board to approve residential development above the current 50 dwelling units per acre for properties designated for high density on an approved development plan and located in a transit station area planned for mixed use within the Reston PRC District, if a proposal is in accordance with the adopted Comprehensive Plan, up to 70 dwelling units/acre.
- 3) Updating language throughout Sect. 6-308 to change terms such as "shall" to "must" and "shall not" to "may not" for clarification.

A more detailed discussion of the proposed amendment is set forth in the Staff Report enclosed as Attachment 2.

Board Agenda Item
March 5, 2019

REGULATORY IMPACT:

The proposed Zoning Ordinance amendment would help implement recent changes to the Comprehensive Plan. It would allow the Board to continue to evaluate PRC applications that seek to implement the redevelopment options in the adopted Reston Master Plan. The proposed amendment would apply only to the Reston PRC District and would not impact the other existing PRC Districts in Burke Centre and Cardinal Forest, which contain no transit station areas.

FISCAL IMPACT:

None.

ENCLOSED DOCUMENTS:

Attachment 1 – PC Verbatim Excerpt

Attachment 2 - Staff Report, also available online at:

<https://www.fairfaxcounty.gov/planning-zoning/sites/planning-zoning/files/assets/documents/zoning%20ordinance/proposed%20amendments/densityprovisionfortherestonprcdistrict.pdf>

STAFF:

Rachel Flynn, Deputy County Executive

Fred Selden, Director, Department of Planning and Zoning (DPZ)

Leslie B. Johnson, Zoning Administrator, DPZ

Cathy S. Belgin, Deputy Zoning Administrator, DPZ

ASSIGNED COUNSEL:

T. David Stoner, Deputy County Attorney, Office of the County Attorney

Laura Gori, Senior Assistant County Attorney, Office of the County Attorney

**County of Fairfax, Virginia
Planning Commission Meeting
February 13, 2019
Verbatim Excerpt**

ZONING ORDINANCE AMENDMENT– ARTICLE 6 – DENSITY PROVISIONS FOR THE RESTON PRC DISTRICT (Hunter Mill District)

During Commission Matters

(Decision Only) (Public Hearing on this application was held on January 23, 2019)

Commissioner Hart: Thank you, Mr. Chairman. On January 10th, the Commission held a workshop and on January 23rd, we had a public hearing on a proposed Zoning Ordinance Amendment regarding the PRC District, and deferred decision to tonight. I'm going to have a series of motions, but first wanted to review my personal conclusions maybe more – more – some more candid than they should be. But the rationale for the – for the recommendation. I largely agree that something has to be done with PRC Ordinance. And I've tried to combine a number of suggestions that we've received and come up with a road map how we will get there. While everyone may not be happy with the outcome, I believe that the – the package that I'm going to suggest is appropriate recommendation we should make to the Board now. This recommendation also, in my view, is an opportunity for fresh start on citizen engagement in continued positive discussions about future of Reston. I hope that the citizens will remain constructive participants in the land use process, including future Zoning Ordinance Amendments, future land use applications, and other hearings before us, whatever happens on this Zoning Ordinance Amendment. Communication and education are very important. They also can help keep a land use process grounded in reality. The land use process does not always result in a unanimous conclusion and we don't all always get there simultaneously, but I have faith in Fairfax County's ability to develop a reasonable consensus on land use issues with a transparent and collaborative process. I also want to thank very much Fairfax County staff and I'm gonna name a number of people, who – over the past, I won't say how long, it's been many months, have participated in this. Several of them are here tonight. Leslie Johnson, the Zoning Administrator, Fred Selden, the Director of Planning, Cathy Belgin, Tom Tom Biesiadny, Anna Bentley, Bill Mayland, Regina Coyle, Andy Dorlester, and many other folks. Also, particularly, David Stoner in the County Attorney's office, for their hard work under very difficult conditions. Zoning Ordinance Amendments sometimes are controversial and this one was, I think, difficult in a number of ways. We were working with very complicated numbers, sometimes in the face of a barrage of misinformation. I have not always agreed with staff over the last few months, but I've always appreciated their patience with me, and their guidance. I also wanna thank the many citizens and groups who participated in the public hearing, sent us letters and emails or came to public meetings over the last year. I haven't agreed with everything that's been said to us by everybody, but I think it's true that we listened, and that we genuinely welcome continued citizen involvement in this process. I also want to thank Goldie Harrison in Supervisor Hudgins office. Clayton Medford and Lindsey Martin in Chairman's office for their guidance and support. And finally, I want to express my appreciation to Hunter Mill Supervisor Cathy Hudgins for her thoughts through this process and her outreach efforts. We haven't always seen eye to eye on this project, but I admire and respect very much her dedication and her commitment to maintaining Robert Simon's principles and vision for the Reston community. Turning to the Zoning Ordinance Amendment, under the statute our role to make a recommendation to the Board of Supervisors after a public hearing. That responsibility is always a great one, but heightened in this case I think because Reston is recognized around the world as a premier example of urban

planning. It's perhaps the best realized new town in United States. We have an obligation to preserve and continue that legacy. I want our recommendation to meet that challenge. The controversy over this amendment was driven, I believe, by unusual amount of misinformation and confusion and a sense of alarm over things that were not happening. There's a wide spectrum of development-related issues which give rise to citizen frustration with development overall. Many of those issues are a result of the Dillon Rule or other legal limitations. Many of the complaints we have heard are not directly germane to the topic before us, are not necessarily within our control. But somehow, on this particular amendment, all of that anti-development frustration was focused on this particular – particular amendment. There were, in my view, several widespread misconceptions about PRC density cap and what it does. Some of those were created or fueled by freelance experts posting misinformation on internet. I've tried to address some of those previously, but I wanna clear that whatever this was about, the Zoning Ordinance Amendment was not proposing a density increase for Reston overall. The density cap is not a ceiling on level of development in Reston. It is a technical complication on use of PRC as a zoning category for applications. Reston will have the same level of future development with or without this cap on PRC. After we hit cap, we will receive the same applications for the same types of uses. The applications will just have to be filled under PRM or PDC or some other permissible category. Similarly, the density cap on PRC have zero impact on infrastructure. The zoning category of a new building is irrelevant and changing this would not be an existential threat to the future of Reston. The uses and densities for Reston going forward, are laid out in the adopted Comprehensive Plan. The Plan is a guide to future development, a general or approximate location of features and components. There is flexibility built into the Plan and throughout the County, there are often options. Sometimes there are multiple Zoning Ordinance categories permissible to achieve a result. The Plan is also looking, perhaps 30 to 40 years ahead. Leaving the PRC density cap in place probably means that the acreage of the PRC district shrinks over time and gives rise to other consequences we may not want. The area that is currently zoned PRC is also not permanent. I personally believe that in flexibility as to the PRC cap may be highly problematic. Some future development within this area may be very much wanted by the community and I don't believe we want to automatically preclude good land use applications because of an arbitrary or outdated formula. The Commission recognizes that Reston has evolved since the 1960s and will continue to evolve. Reston went through a major planning study several years ago with a citizen task force that met 200 times. They've reached a number of conclusions which I believe are still essentially valid. The Toll Road and Silver Line were transformational. Also, I believe principles of smarter growth as they have evolved and become better understood and incorporated into our planning. Consistent with Countywide and regionable - regional planning objectives, we concluded that the future growth should largely be vertical, focused at transit stops, and the rest of Reston would remain essentially stable. The creation of the Transit Station Areas, or TSAs, was absolutely essential to this approach and I would not change that. Those conclusions had the task force support and staff support and also, at that time, the support of Reston Association, the largest homeowners association in the County. I think that was important. The task force and these recommendations also had the support of Robert Simon and I – I found that also personally influential. The Planning Commission made some edits to the recommendations. The Board of Supervisors adopted them and we had begun implementation. But the introduction of the Transit Station Areas into the Reston Plan complicated the application of the density cap on the PRC District. We recognized for a number of years that we would need a Zoning Ordinance Amendment, but we never finished it up and that has led to our current dilemma. Tysons Corner went through a parallel planning process very similar to Reston a few years earlier. Tyson was largely re-planned

because of the Silver Line, which was a similar change. Tysons went through years of citizen meetings, we completed plan amendments, we had follow-on motions, we did an implementation Zoning Ordinance Amendment, which was also necessary for the Tysons Plan, in short order following the completion of the Tysons amendments. That process, which involved many of the same staff personnel and a very similar template for how the task force would be and how that would be handled by the Commission, was very successful. It won a National Planning Award. Unfortunately, with the same ingredients, for whatever reason, we never got to the implementation Zoning Ordinance Amendment for the Reston Plan. We didn't do it 2015. In my view, the consensus had at that time has faded. Commissioner de la Fe has passed away. Mr. Simon has passed away. There's been extensive turnover on the Reston Association Board. There's been extensive turnover on the Commission. The reasons for those recommendations have largely been forgotten. My conclusion is that now in 2019, partly because of the four-year delay, the important consensus we had is gone and there is little or no visible citizen support for doing the Zoning Ordinance Amendment standing alone. There is a lot of visible opposition, even if that has been fueled by misinformation. I don't believe we can do the two pieces separately. And ultimately, I don't believe it's right for Board of Supervisors to go forward, absent citizen involvement in a completion of the process. We waited too long and disingenuous to pretend otherwise. Some of that loss of support, I believe also, can be minimized over time with education and an open process. While I agree that we probably will need to do something with density cap and that probably we will want to hold the PRC District intact if there's a way to do that, we can't force the Zoning Ordinance Amendment through now. Importantly, I think we don't need to and I think, based the information we've received from staff, and the guidance they've given us, the development and the implementation of the adopted Comprehensive Plan can continue in the meantime. We have at least two options related to future development. One will be, if we hit the PRC density cap and an application wants to come using the PRC category, which I think staff has encouraged, the Board can authorize a concurrent Zoning Ordinance Amendment for an incremental increase, with case-by-case review. That, at least, allows for a process with a specific analysis of the specific impacts or implications of a given application, rather than a hypothetical across-the-board density cap increase. The second option, which I think is less desirable, but maybe more likely under certain circumstances, is that those applications will zone out of PRC and they will just come in as PRM or perhaps PDC. Which are similar categories or allow similar types of development in some ways. You don't need 750 acres, you need 5 acres or perhaps less if the – if the – if the acreage is waived. And we have also been dealing with PRM nearby. We've been doing it in Dulles Suburban Center and other places. I don't know that the result ends up all that different, certainly in terms of infrastructure or commitments or any anything else. There is an additional procedural layer in PRC with the review of a PRC Plan, which I think we would like to retain. I think it allows additional locality control over an application and additional opportunity for citizen input. But either way, those applications can continue. I think it is reasonable for us to recommend to the Board that they resume the process to look at select issues, which I will itemize, recoupling a review of the PRC density cap with tune-up on several discrete aspects of the adopted Plan, which we'll discuss. I think that request, also is consistent with one of the suggestions from Reston Association as well as some individuals. I think it's also consistent with Fairfax County's long tradition of making important land use decisions after a citizen task force has weighed in. We don't always reach the same conclusions as the task force, but that process is important. I believe also the Village Centers are the key to that solution. In some respect, that singling out the Village Centers may be heresy. I – I certainly know Mr. Simon wanted – initially, he wanted half a dozen intense Village Centers. Lake Anne on steroids perhaps and that didn't really happen. We got Lake Anne mostly

and then we got some shopping centers. And that – I think Lake Anne was the closest to what he wanted, but we had some residual flexibility in the Plan that allowed for a much more robust development of those Village Centers, which never materialized. I think Mr. Simon, even his parting shot to us he – he had hoped we would get there. The intensity from 1960s was simply carried forward in the Plan. And I – I – I know we did it, I know we went along with it, but in light of everything that's happened, I think it's appropriate to revisit that. Whether the cap should be – or whether the maximum in the Village Centers should be as high as it is. I also don't think that process can be done in isolation. I think it's appropriate to discuss dialing back the residential aspects of the Village Centers and clarification of what those Village Centers should be, interlocked with a revisiting of the PRC density cap. This also may end up only being three of the Village Centers ultimately. Lake Anne, I think, is a special case. We thought we had a package for redevelopment of Lake Anne. We thought we had a deal. It fell apart and I think the conventional wisdom is we may have asked for too much, and the development did not make economic sense. I think we still want redevelopment of Lake Anne and that's in still another reason why we may want to look at the density cap. Tall Oaks, we just finished. I don't think Tall Oaks is coming in any time soon. That leaves three other Village Centers. I don't think any of them is really teed up for anything, so we may have time of all that. It is more logical to revisit the density cap in conjunction with scrutiny of Village Centers. I think reasonable people, participating in a reasonable process, assisted by County staff, can arrive at a reasonable consensus about where all those numbers lead us. That's something for us and the Board to evaluate. I wanna say a few things about infrastructure and some other comments that we received in this process – not necessarily affecting what these motions are going to be, but nevertheless I think responding to many of the comments that we've heard. There was a lot of citizen interest in the issue of infrastructure and I hope this is an opportunity for folks to get involved in the land use process, whether in infrastructure or some other aspect of it. Infrastructure is a very complicated issue in Virginia, partly because of the Dillon Rule. There were a number of, I thought, unfortunate or careless comments that we have received, which I wanted to call out and I wanted to respond to and I hope will help put some of this in perspective. Some people have said there are no plans for infrastructure and that nothing being done. And I found that very frustrating. It reflects a certain level of ignorance and it's also a slap in the face to many hard-working County staff who are doing a great deal for infrastructure. Fairfax County approves a Capital Improvement Program every year. It's as thick as a phone book. There is some coordination between the Comprehensive Plan, which is looking at 30 to 40 years and the implementation of infrastructure on an annual basis. We receive presentations from approximately 15 departments – schools, parks, transportation, libraries, police, fire, stormwater, housing, and others. Those projections are adjusted each year based on many changing variables. I think it is naïve and simplistic simply to state infrastructure must be in prior to development. That kind of pronouncement is unrealistic, given the limitations we face under state law. It's not going to happen in Virginia. It would have happened already. The process of securing infrastructure in a Dillon Rule jurisdiction requires much more of an ongoing effort. There may be great things happening in Seattle and Portland and Amsterdam, but we live in real world. We live in Virginia. We live in a Dillon Rule state. Mr. Biesiadny addressed, I thought, eloquently in workshop, the issue of transportation. Fairfax County, in fact, has detailed and aggressive plan for funding transportation infrastructure in Reston. It's the second plan that the Board has adopted. Tysons was the first. I think that the Commission recognizes transportation funding comes from many different sources. It comes at different times. It's not easily controlled. It's not always known in advance. Some money comes from development. We don't always know when that's going to happen the applications market driven. It's important to recognize, also, that

transportation infrastructure needs also are impacted by development in Loudoun and elsewhere – things that we don't control. If we abandon the TSAs, if we say, okay we'll go back we'll have sprawl, put your townhouse in Ashburn. Put time in Leesburg. Put them in Harpers Ferry. Many of those people still end up driving down Route 7 or the Toll Road and there's nothing we can do about those impacts. Major amounts for transportation also come from Richmond. The General Assembly meets once a year. They're meeting right now. We hope there's a budget. We hope there're transportation money in the budget. We hope some of that money is for us. We hope there's a Governor. We don't always know. We hope the Governor signs the budget. We find out once a year what's going to happen, and we make adjustments. We're starting CIP. Commissioner Sargeant announced we're starting CIP next week. We don't always know what's going to happen with that. Some infrastructure, including for transportation also, is local money and that depends on a number of things. It depends on Board of Supervisors authorization for bond referenda. That may happen once a year. We don't know the dollar amounts or which departments. There's usually a schools referendum. There's often parks. Then, we decide are we gonna do this year transportation or libraries? What are we gonna do? Maybe public safety. We try and work with what we have. The Board puts a package together, within the limits of the bonding capacity, and then that decision is ultimately up to the voters. We hope the bond referendum pass. The hope that that money materializes. There are many moving parts. I think that I've explained that, to the infrastructure equation. We make a recommendation based on those – the data that we receive, the information that we get from the agencies. Committee meetings, the workshop, public hearings, mark-up, and a recommendation. Citizen participation in that process is usually very limited, but it's welcome. In the interest of transparency, some people find the CIP details complicated and boring. I think it is reasonable to disagree constructively with County recommendations on infrastructure priorities, but it is – it is ignorant and unnecessarily rude to claim that there are no plans for infrastructure or that nothing is being done. Specifically, with respect to parks and school sites, that also was called out a little bit. Some folks have complained that specific sites were not yet identified, despite the need for them from the Comprehensive Plan. But approach is typical throughout Fairfax County and I think it's logical. First, we want the Board of Supervisors to have flexibility in implementation. We want them to be able to take options as opportunities may arise. Secondly, and we have some School Board and Park Authority alumni sitting at the horseshoe here. They may correct me. But staff is also almost always looking at property, but we do not disclose necessarily those plans in detail. It would be irresponsible to announce the plans in advance, particularly where an assemblage of multiple parcels is sought, in multiple ownership and there maybe a holdout for one of those parcels. If we announced that those are sites that we are looking at, the price goes up. The School Board and the Park Authority are going to be responsible for spending public money. The Schools Committee also is currently looking at some other options – flexibility, which would include for urban schools retrofitting of existing building – buildings or other creative ways to find school sites within a mixed-use project or – or other options. Affordable housing and this – this was another issue mentioned in some of the correspondence. It's a Countywide issue and it's very difficult to resolve. It's not unique to Reston. Supervisor Hudgins and the Board of Supervisors have both made affordable housing a priority. The economic realities and feasibility of affordable housing have been analyzed and negotiated many times. I think we've concluded that localized distinction impractical and the implementation is often very difficult financially. An important objective of Mr. Simon was to make sure that housing would be available to all age groups and all income levels throughout Reston. Those principles have been reiterated and adopted once again in the Comprehensive Plan. But the realization of that housing is even more difficult than it was 50 years ago. I think we recognize that it is to expect that the market alone

will is gonna generate affordable housing. Some of the existing affordable housing we have is obsolete and vulnerable to redevelopment. It's difficult to maintain the current level. In order to continue to provide affordable housing, whether it's in Reston or elsewhere, I think we have a consensus there probably has to be some ongoing development activity, a percentage of which will come in as affordable dwelling units or workforce housing and that's gotta happen. Let me come back to the Zoning Ordinance Amendment and where this leaves us with the density cap. I think staff is right that we are very close to cap now. We probably have to do something to keep it, but level of pushback we've received, confirms for me that this is the wrong way to do the amendment and we shouldn't force it. I – I think over time, the misinformation can be challenged, and mistakes of perception can be fixed. We – we owe it to the citizens also, I think to try. One of Mr. Simon's seven goals, this was a relatively simple one, the importance and dignity of each individual – that the importance and dignity of individual be the focal point for all planning and take precedence for large-scale concepts. I tried to think what would he have done in this sort of situation? I think we have to recognize the importance and dignity of each individual. And to me, we have to respect the input of individual citizens. I think a renewed process looking at the Village Centers again follows that guidance. I also don't think there's any harm for the Commission recommend to the Board that the amendment be denied at this time. That they withdraw the authorization, if it's possible to do that, and authorize a plan amendment of limited scope with a citizen process to recouple the density cap determination with that plan amendment to do a simultaneous adjustment of the plan numbers of the Village Centers and the density cap for PRC. We can look at some other selected edits later. When we do a task force, sometimes it starts out kind out kind of rough, but we usually reach a consensus. I think we will be no worse off than we are right now after that process. And I think, consistent with Simon's objectives, he would want citizen involvement. Can there be development in the meantime? Yes, that's very important. Ultimately, I think reasonable people may conclude, that it is preferable to raise the density cap slightly – try to keep the PRC acreage intact, rather than eave cap in place and create checkerboard of PRC and PRM and other categories. Reasonable people might agree on an increase. Ultimately, once the misinformation dissipates, but I think it's also better to have that discussion in the context of an adjustment to the Village Centers. Therefore, Mr. Chairman, I will have several motions. First, I MOVE THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF SUPERVISORS, DENIAL OF THE ZONING ORDINANCE OF THE ZONING ORDINANCE AMENDMENT TITLED ARTICLE 6, DENSITY PROVISIONS FOR THE RESTON PRC DISTRICT, WITHOUT PREJUDICE TO THE TOPIC OF THE PRC DENSITY CAP BEING LATER REVISITED IN CONJUNCTION WITH THE PLAN AMENDMENT SUGGESTED BELOW, WHICH IS IN LATER MOTIONS. AND, IF POSSIBLE, THAT THE BOARD OF SUPERVISORS CONSIDER WITHDRAWING ITS AUTHORIZATION FOR THIS ZONING ORDINANCE AMENDMENT, PRIOR TO THE ADVERTISED PUBLIC HEARING SO THAT A BOARD OF SUPERVISORS PUBLIC HEARING NEED NOT BE HELD AT THIS TIME.

Commissioner Sargeant: Second.

Chairman Murphy: Seconded by Mr. Sargeant. Is there a discussion of the motion? All those in favor of the motion to recommend to the Board of Supervisors that it deny the Zoning Ordinance Amendment, Article 6, Density Provisions for the Reston PRC District, say aye.

Commissioners: Aye.

Chairman Murphy: Opposed? Motion carries. Mr. Charter.

Commissioner Carter: Well, I....

Commissioner Hart: I got a couple more...

Commissioner Carter: I meant to say something before we got into the – to the motion. So – so if we could go off verbatim for a second? Is that appropriate?

Chairman Murphy: No.

Commissioner Carter: No.

Chairman Murphy: Right. We're on now.

Commissioner Carter: Okay.

Chairman Murphy: Yeah.

Commissioner Hart: It's alright. I messed everything up with the long speech. So, you're not – she's gonna be here until 4:00 a.m., typing anyway.

Samantha Lawrence: [Inaudible]

Chairman Murphy: No, I'm not...

Commissioner Sargeant: That's that.

Commissioner Carter: Sam used to be my good friend. But I'm not sure now. I think we off on the wrong foot on this and I want to reiterate what you said about that. You cannot wait a substantial amount of time do to the zoning case. The – the proper way, in my view, is at the same time, not after – at the same time, you either I – I would prefer, and I know there's – there's a lot of reasons not to do this. I would prefer a implementation chapter in the Plan. If you can't do that, a separate document that does the implementation at the same time that you're – you're doing the plan because there's a back-and-forth that has to occur between implementation and plan making. And if you don't do that, we end up in – in cases like this. What we're really doing when you're four years late, is we're planning and you can't plan through a text amendment. That they – we get into the numbers and I've got lots of questions about the numbers and you – you've heard me talk about this before. It – nobody's gonna come to – to Reston to see what a wonderful job we did on the caps. That's not a world-renowned feature that the people are thrusting to look at. And let me go back even further a little bit. In the beginning, when this was created, there was a bundle of units or people that were given to the developer. And we heard reasons why that was set up like that. But the choice was – well, we could have all quarter-acre lots or we could do this more sophisticated planning. But however we got there, we ended up with approximately, I believe 81,000 people coming – coming to Reston. And that was the first step. The next step was a land use plan. And on that land use plan, we want to provide this flexibility where we could move land uses around. Unfortunately, well – part of that flexibility was you would designate low, medium, and high areas. So, you would have a town center, high

density Village Centers – maybe a little less – lakes and streams and golf courses, a lot less density – maybe no density. We're kind of losing that. And the essence behind that is you wouldn't be able to just do this by numbers. So, we go to those spots on the Plan and you add it all up, that was gonna be above the cap. So, you couldn't just do that. So, you have to come back and do the planning part of it. This is – and then after all of that was done, then the PRC zone was created. Put the caps into the law and setup a process. It takes a little while to get there, I think, but with this rezoning Development Plan, Subdivision Plan, Site Plan, the whole permitting process. And that was all very straightforward. Now here we are 55 years later and the mistake in the Plan was there's no flexibility. So – so when – and I'm not criticizing the staff about this because I probably would do the same thing and it would good thing we have staff that try to be equitable and fair among all the properties. But when you take those spots on the land use plan and you go to the maximum and, instead of doing what Robert Simon and Golf Reston and Mobile did, they – they could trade properties because it was one person. What do I care, as long as I get my maximum? You can't do that when we're 55 years later and the land has all been parceled out to different people. And so, it's difficulty to take from one person and give it to another for the planning reason. And that's where we got off on the wrong foot. So, when you start calculating the numbers explode. If you really want to know the numbers, it's like 18 or 20,000 people that we would have to lift the cap to, to meet all of those – the map that's in the Plan. But the map – and that's how a zoning person does it. And I understand that and that's this fairness issue. But the rest of the Plan goes into the delicacies of each individual site. For example, North Reston – the Town Center. The very large set of numbers in the land use plan – when you read the text, it says, the – what the units you get have to be significantly lower than the adjacent high-density areas. In addition, we put a library, homeless shelter, government center, the future indoor recreation center, and if that's not enough, we put an elementary school and a large central park and filled it up with roads to – to. And so, this – this lack of ability to do the planning part is – is what's missing and I think that's in part what upsets some people. I'm concerned and in our dealing is we ought to do plans differently. And I know we're gonna – to a certain extent I'm blowing in wind here, I guess about that. But get that implementation sooner. Never again should we wait this long, and it shouldn't be after the plan, even one second. It should be at the same time. I'm concerned of you loosing the PRC Zone because I think and – I'm not gonna ask the County Attorney about that – but, if we go too much of that rezoning this is gonna be problematic to existing homes. My home, will I be – now be nonconforming because we're below the cap. That's a concern and so we ought to do everything we can to not zone out, if just for that reason. I'm a little concern that we may not be going far enough and I know Commissioner Hart is gonna spend a lot of time trying to put this together. I don't wanna be back here a year from now with just the same issues just coming back in the same thing and go over this all again. We wanna come up with a more robust and a more creative system that will put Reston in place that we can get some consensus behind it. And that's where I wanna go. So whether this would do that, I'm not sure. The other concern I have is the bond issue for the new library, which and – I may not have this right – but that's expiring in 2022. And if don't put something in there that allow that to go forward and there is a proposal to make that a joint development site, because the homeless shelter and library going with that. If this constrains that in any way, that would be a problem. Now I wonder, maybe I can ask something of staff, what is the time difference between – assuming everybody likes it, which may be a big assumption. If you go through this process that Commissioner Hart is talking about – the difference in process, when you – when you we go to a Master Plan amendment or Comp Plan amendment, Development Plan, I mean zoning – Comprehensive Plan Amendment, the rezoning and the

Development Plan. Could you do that together? Is that take more time when we add in this and don't raise the cap basically? The answer to that would be?

Fred Selden, Director, Department of Planning and Zoning: Fred Selden, Department of Planning and Zoning. You can do them concurrently. We – but you would be looking at probably several months between the two just to – to handle the different advertising requirements and things of that nature. So...

Commissioner Carter: So you can do them together once you got there, I guess.

Mr. Selden: Yeah, once you got there. Again, there may – there may be some spread in terms of when you might have the public hearing on the Plan and then the public hearing on the zoning change because you'd – you'd – to make the – sure that the zoning implements the plan, you'd have to get that adopted first. But again, they could both be considered at the same time and be as close – closely scheduled as possible.

Commissioner Carter: Another – Another comment – and this is the Dillon Rule state issue that – that – and sorry I'm bringing some baggage to this. I – I know from where come from, but – Dillon Rule I don't notice much difference in the way planners do things or what planners are thinking between jurisdictions. Planners often think alike. So, maybe we have to be a little more creative over here because they're a Dillon Rule problems? But I hope we don't use that as an excuse to plan well, even for infrastructure. I know it's a challenge, but that's the fun of it, isn't it? So, again I'm probably talking to wind here, but I think this infrastructure we haven't solved yet to the satisfaction of a lot. And – and I think in our planning and replanning we ought to think about this Dillon Rule standard and not using – and I'm not saying we do, but my impression there are times, we kind of use that as an excuse to avoid certain infrastructure issues, whether it's schools or roads. Every jurisdiction has funding problems Every jurisdiction has school problems that's developing well. So, I just – you know in going ahead, with this I wonder. Now another, and I'm not sure how to do this, but I guess I'll do. What if suggested raising the cap to thirteen-and-a-half to get the library and the homeless shelter. Does that make sense? So, I'm thinking rather – to maybe telegraph our thoughts...

Chairman Murphy: I think we've already voted on the main motion...

Commissioner Carter: Yeah, well...

Chairman Murphy: To deny. It's kind of late to put that out on the floor.

Commissioner Carter: Okay. Alright.

Chairman Murphy: Mr. Hart.

Commissioner Carter: Those are my things. Let me makes sure I got all my points out. Again, I don't us to come back with the same thing. I want us to come back with something really creative and really outside the box and deals with some of these things that we talked about, even in a Dillon Rule state the – the infrastructure. And – so that's – that's where I am.

Chairman Murphy: Mr. Hart.

Commissioner Hart: Yeah. Thank you, Mr. Chairman. I have three more motions, but let – if I may, let me – let me just take a moment and offer a couple of comments. Staff has heard me many times and perhaps in more candid language about not again, that we'd never do this again. If this ever happens we have to do the implementation amendment together or close on the heels with it, and I think we've got that – we got that message. As to the time, let's say we have a – a development application that's got a library in it or something that we needed...

Commissioner Carter: Yeah. That's the main one I'm concerned about.

Commissioner Hart: Again, my understanding is that if the application comes in – I mean I'm assuming maybe it doesn't need a plan amendment. If it doesn't need a plan amendment, it's just they – they're filing a zoning case to do something and there's a library in it that – so long as the Board authorizes it, even if we hit the cap, the Board can do a simultaneous Zoning Ordinance amendment to do in incremental, you know 13.002 or whatever the number would be – they could do those two together and it wouldn't slow down the – the zoning case, it would just – it would – it's a more expensive add I guess and perhaps it's a slightly longer public hearing to read all that stuff, but they could be done concurrently. Is that correct?

Leslie Johnson, Zoning Administrator, Zoning Administration Division, Department of Planning and Zoning: Leslie Johnson, Zoning Administrator. Yes. It could be done.

Commissioner Hart: Alright. And finally, the thing on the Dillon Rule and I mentioned it. I didn't spend a lot of time with it. But the Dillon Rule comes up, it doesn't just come in Reston. It comes up everywhere...

Commissioner Carter: Yeah.

Commissioner Hart: It came up in Mason District, it's come up in Dranesville, it's come up in Sully...

Commissioner Carter: That's my concern.

Commissioner Hart: The Dillon Rule – we struggle with this all the time. Judge Dillon was a product of 19th century enlightenment. And one of the – the principals that the – the enlightened folks discovered, was that local government is inherently corrupt and local politicians are inherently corrupt. And, therefore, in order to have good government, clean government, the wise men – and it was just men then – the wise men in the State Legislature need to make sure that the localities are as weak as possible and that they don't have the power to do anything and they can't mess anything up. And that, in order for a locality to do something, they have to be specifically delegated the power to do it, specifically enumerating and enabling legislation. And unless and until, they say, Fairfax County you can do it, you lack that power. And there are a lot of things that we wanted to do that we've tried to do and that we've tried to do, and I think, Mr. Stoner will forgive me, but Fairfax County was at the cutting edge for decades of losing cases...

Commissioner Carter: Yes. Yes.

Commissioner Hart: On land use authority. And there're all kinds of times the Supreme Court slapped us down and said, you cannot do that. And they – and we, it came up in Reston. The – the – this moratorium business we were inundated for a while when people wanted a moratorium. Well yeah, yeah, let's do a moratorium. Nineteen seventy-five – Board of Supervisors versus Horn, the Supreme Court said, Fairfax County, under the Dillon Rule, you lack the power to have a development moratorium, even an emergency moratorium and any legislative attempt to do so is in valid. So, the solution to that is a General Assembly action that we'd have the power to do it. When I brought up the Dillon Rule in the context of infrastructure, what I meant was, we get a lot of wise opining that. Oh well we must make sure the infrastructure's in place before all this over development. I was like great, yeah. We – we don't have adequate public facilities legislation. We don't have the power to enact a requirement. We don't have the power to deny development on the basis that the schools aren't in. The roads aren't in and that would be great. And maybe they could do that in Amsterdam...

Commissioner Carter: Maybe not.

Commissioner Hart: And maybe they can do it in Portland and Seattle, and all these places. But we're stuck with all these court cases and every one of us – everyone of us stood down in the well, and we took an oath with the Clerk of the Court and we said we said we're gonna follow the law and we have to do what we're told. And the judges say, you have to follow what the Supreme Court says, we have to do it. And so, given the cards that we've been dealt, we're not going to be able deny development because of the absence of adequate public facilities. And, a slogan that – you know we're not gonna approve anything or we're not gonna, we – we have to approve the development at after the infrastructure is in place doesn't – it's not gonna change how we – how we're able to do business. That's the kind of limitation I'm talking about. It isn't possible to put that in the Plan. You put that in the Plan and a court still isn't gonna let us do it. We have to do – we have to roll up our sleeves. We have to do it the regular way. We have to do it through the staff and a combination of money from the General Assembly or commitments from a developer or maybe do a transportation bond and we – we crunch these numbers every year and we – we make adjustments on our teeter totter or we make – do recommendation to the Board and we come up with it that way. And unless and until, that rule changes – it's been 50 years, 1969 – 1969. The Committee on Constitutional reform called for a modification of the Dillon Rule in Virginia. And the General Assembly didn't do it in 1969 and they didn't do it in 1970 and 70 and 71, and so on and so forth. And we've been waiting all this time. And maybe the numbers are changing – maybe recently. Some other things are changing in Richmond – the proffer bill, where if we have a Governor who can sign a bill maybe we – we'd in the next few days that's gonna be the amendment goes in. Until the General Assembly changes that or gives us some specific powers, we're always gonna be limited on things like infrastructure. And even if we could extract things from developer – from developers, that doesn't help us for the people driving through from Loudon County. Doesn't help us with the impacts that we've getting from commuters from West Virginia. We have to deal with those in a regional way rather than, simply Reston. We have to look at things Countywide and regionally, which tells us again, that the conclusions of the task force were correct. That we shouldn't be having sprawl. We should be focusing our development throughout the County at these Transit Station Areas, and where – where the infrastructure is largely in. Were it's more efficient to put people, where some of them are gonna walk to work or some of them are gonna take the Metro. And that just reinforces in my mind the correctness of the conclusions of the task force four years ago even if the Village Centers, which to my mind was sort of an afterthought, or was a residual thing we brought

forward instead of an affirmative implementation of principals of smart growth and regional planning. And maybe I'll get off the soap box get back to my motions. But that's the Dillon Rule thing I was thinking about. If that make sense.

Commissioner Carter: If I – if I can just try a little bit of a pushback....

Commissioner Hart: Samantha, I'm sorry, you're gonna be here 'till...

Chairman Murphy: Yeah let's, can we move on with the motions? Okay, go ahead.

Commissioner Hart: Alright, secondly Mr. Chairman. I MOVE THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF SUPERVISORS THAT THE DIRECT STAFF TO PREPARE A DRAFT OF THE COMPREHENSIVE PLAN AMENDMENT FOR THE BOARD OF SUPERVISORS CONSIDERATION FOR THE WORK PROGRAM AND AUTHORIZATION FOR ADVERTISING, AS A RESUMPTION AND COMPLETION OF THE RESTON PLANNING WHICH RESULTED IN THE 2014 AND 2015 AMENDMENTS, TO BE RECOUPLED WITH THE TOPIC OF THE DENSITY CAP IN PRC. THIS NEW PLAN AMENDMENT WOULD ADDRESS THE FOLLOWING ITEMS:

1. WHETHER THE VILLAGE CENTERS, OR ANY OF THEM, SHOULD HAVE AN UPPER LIMIT ON THE NUMBER OF ANTICIPATED RESIDENTIAL UNITS, LESS THAN 50 DWELLING UNITS PER ACRE;
2. CLARIFICATION OF PLAN LANGUAGE DESCRIBING VILLAGE CENTER MIXED-USE AND DEVELOPMENT, TO CONFIRM IT IS TO APPLY ONLY TO THOSE PORTIONS OF THE CENTERS ALREADY DEVELOPED WITH NONRESIDENTIAL USES, AND NOT THE VILLAGE CENTERS' STABLE RESIDENTIAL AREAS;
3. CLARIFICATION OF THE 50-PLUS DWELLING UNIT PER ACRE HIGH-DENSITY MULTIFAMILY LAND USE CATEGORY, TO CONFIRM THAT IT APPLIES TO CAPTURE THE EXISTING PROJECTS THAT HAVE AN EXISTING DENSITY ABOVE 50 DWELLING UNITS PER ACRE, AND CLARIFY THAT IT DOES NOT PROVIDE UNLIMITED DENSITY TO THOSE SITES;
4. INCLUSION OF UPDATED PLAN LANGUAGE REGARDING HISTORIC RESOURCES, PARTICULARLY ANY UPDATES AT THIS TIME, FOR SITES LESS THAN 50 YEARS OLD BUT DESERVING OF CONSIDERATION.

THIS PLAN AMENDMENT SHOULD THEN BE COUPLED WITH ANY APPROPRIATE ADJUSTMENT TO THE PRC DENSITY CAP, IN RECOGNITION OF ANY ADJUSTMENT TO THE VILLAGE CENTERS.

Commissioner Sargeant: Second.

Chairman Murphy: Seconded by Mr. Sargeant. Discussion of the motion? All those in favor of that motion, say aye.

Commissioners: Aye.

Chairman Murphy: Opposed? Motion carries.

Commissioner Hart: Third, Mr. Chairman, I MOVE THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF SUPERVISORS, THAT THEY, IN CONJUNCTION WITH THE HUNTER MILL DISTRICT SUPERVISOR, ESTABLISH A BROAD-BASED CITIZEN TASK FORCE, INCLUDING REPRESENTATIVES FROM THE COMMUNITY AND INDUSTRY, TO REVIEW AND DEVELOP A RECOMMENDATION ON THE PLAN AMENDMENT, COUPLED WITH AN EVALUATION AND RECOMMENDATION ON APPROPRIATE MODIFICATIONS TO THE PRC DENSITY CAP, AND TO REPORT BACK TO THE PLANNING COMMISSION AND BOARD OF SUPERVISORS WITH THEIR RECOMMENDATIONS.

Commissioner Sargeant: Second.

Chairman Murphy: Seconded by Mr. Sargeant. Discussion of that motion. All those in favor, say aye.

Commissioners: Aye.

Chairman Murphy: Opposed? Motion carries.

Commissioner Hart: Fourth, Mr. Chairman, I MOVE THAT THE PLANNING COMMISSION RECOMMEND TO THE BOARD OF SUPERVISORS, THAT THE NON-SUBSTANTIVE EDITORIAL AMENDMENTS PREVIOUSLY ADVERTISED WITH THE ZONING ORDINANCE AMENDMENT PACKAGE, BE REVISITED IN THE CONTEXT OF THE NEXT SET OF MINOR EDITORIAL REVISIONS.

Commissioner Sargeant: Second.

Chairman Murphy: Seconded by Mr. Sargeant. Discussion of that motion. All those in favor, say aye.

Commissioners: Aye.

Chairman Murphy: Opposed? Motion carries.

Each motion carried by a vote of 12-0.

SL



**FAIRFAX
COUNTY**

STAFF REPORT

V I R G I N I A

PROPOSED ZONING ORDINANCE AMENDMENT

Article 6 - Density Provisions for the Reston PRC District

PUBLIC HEARING DATES

Planning Commission

January 23, 2019 at 7:30 p.m.

Board of Supervisors

March 5, 2019 at time tbd

**PREPARED BY
ZONING ADMINISTRATION DIVISION
DEPARTMENT OF PLANNING AND ZONING
703-324-1314**

December 4, 2018

CSB



Americans with Disabilities Act (ADA): Reasonable accommodation is available upon 48 hours advance notice. For additional information on ADA call 703-324-1334 or TTY 711 (Virginia Relay Center).

STAFF COMMENT

The proposed Zoning Ordinance Amendment is listed on the adopted 2018 Zoning Ordinance Amendment Work Program (ZOAWP), for the Board to consider revisions to the maximum allowable persons per acre (persons/acre) and residential densities in the Planned Residential Community (PRC) District, specific to Reston, only; to facilitate the implementation of the updated Reston Master Plan. Reston is unique from the other PRC Districts in the County because it is served by Metrorail. The Reston Master Plan Special Study was initiated in 2009 and concluded in 2015. Phase I of the Special Study resulted in the adoption of a Comprehensive Plan Amendment in 2014 that focused the greatest proportion of Reston's future development potential in the Transit Station Areas (TSAs) along the Dulles Toll Road. Phase II of the Reston Master Plan Special Study resulted in the adoption of a Comprehensive Plan Amendment in 2015 that identified opportunities for limited additional residential development outside of the Reston TSAs. While not a central focus during the Special Study process, it has been periodically noted since 2007 that an amendment to the density provisions of the PRC District in the Zoning Ordinance would be required to accommodate planned residential growth near the Reston Metro Stations. The density amendment for the Reston PRC District has appeared on the Zoning Ordinance Amendment Work Program as a Priority 1 item since 2010.

For reasons discussed below, the proposed changes to the Zoning Ordinance would be specific to the Reston PRC District only, and would not apply to the other existing PRC Districts in the County, which include Burke Centre and Cardinal Forest—neither of which includes a Metro station. This amendment proposes an increase in the maximum permitted overall residential density limit for the Reston PRC District. In addition, for properties designated on a development plan for high density residential development—specifically mixed use—in the Reston PRC District that are located within the TSAs, the proposal would allow the Board to consider approval of residential development above the limit of 50 dwelling units/acre up to 70 dwelling units/acre under specific, limited conditions.

Background

In 1962, the Board adopted an amendment to the Zoning Ordinance to create a Residential Planned Community (RPC) District to guide the development of the then new planned community of Reston. The district was later renamed the Planned Residential Community (PRC) District. The primary purpose and intent of this new zoning district was to provide the flexibility and incentive for a single developer to create a large planned community that demonstrates excellence in physical, social, and economic planning and provides integration of a variety of uses throughout the district. The PRC District at the time of its establishment was distinct from other, more traditional zoning districts in that the provisions used population density to govern the overall size and character of the community required that the district be established under a single ownership or control; and afforded flexibility to the single master developer to transfer unused density from one development to another within the PRC District, subject to the population factors set forth in the PRC zoning provisions. The PRC District establishes a maximum overall density of 13 persons/acre for each of the three established PRC communities, including Reston, Burke Center and Cardinal Forest. The Zoning Ordinance

assigns a “persons per dwelling unit factor” for each type of dwelling unit. The number of persons per each dwelling unit type are then added together and divided by the total number of acres within the PRC, which then establishes the overall density within the particular PRC community.

There has been a significant change in circumstances over the years in the three PRC communities. There is no longer a single developer for any of the three PRC communities, because over time each single developer conveyed ownership of land within the PRC community to others. The PRC District provisions provided little guidance on how to manage development with multiple property owners, many with approved zonings seeking to redevelop their respective properties under the 13 persons/acre limitation applicable to the entire PRC, and there was little, if any, undeveloped property remaining within the three PRC communities to support residential growth.

As a result, in 2007, the Zoning Ordinance was amended to revise the population factors used in computing population density within the PRC Districts, as well as to change the process for approving a PRC Plan from an administrative approval to a legislative action by the Board of Supervisors. At that time, the population factors for single family detached, single family attached, and multiple family dwelling units were adjusted to more closely align with the average household size based on the most recent Census data. The revisions to the population factors—which are currently 3.0 persons per single family detached unit, 2.7 persons for single family attached units and 2.1 persons per multiple family dwelling unit—resulted in a modest increase in the amount of remaining residential development capacity under the maximum density of 13 persons/acre. It was understood at that time, however, that the County was anticipating additional future residential growth—particularly in Reston where additional high density residential development could be appropriate in Reston’s Town Center, along the Dulles Corridor and in areas associated with future transit stations as part of the Silver Line Metrorail expansion—and that a future Plan amendment and corresponding Zoning Ordinance amendment would be needed to accommodate this growth.

With respect to the Burke Center and Cardinal Forest PRC Districts, each of these areas was generally rezoned at one time and are subject to detailed development plans that specifically set forth the dwelling unit type and density of residential development to occur in the various portions of these communities, whereas the Reston PRC District consists of multiple rezoning applications, many of which have approved development plans that were more vague in the designation of numbers and types of dwelling units. Unlike Reston, Burke Center and Cardinal Forest do not include any Metro stations and are not planned for the associated high density residential development associated with Metro stations. Therefore, the proposed changes to the PRC District in this amendment apply only to the Reston PRC District.

It is important to note that certain areas identified as part of the larger community of Reston are not zoned PRC, and they are therefore not subject to this proposed Zoning Ordinance Amendment or to the calculations of residential density that apply to the PRC District. The central portion of Reston running east-west along the Dulles Toll Road includes areas zoned for commercial and industrial uses, known collectively as the Reston Center for Industry and Government (RCIG). In 2001, transit-related development options, including the addition of residential opportunities, were added to the Comprehensive Plan for this area in expectation of the planned extension of Metrorail. Later this area was redefined as three separate but contiguous TSAs. A map showing the location of Reston PRC and non-PRC Land, including the TSAs, can be found at:

https://www.fairfaxcounty.gov/planning-zoning/sites/planning-zoning/files/assets/documents/zoning%20ordinance/proposed%20amendments/restonpredistrict/reston_prc_and_nonprc_land_map_600dpi.pdf

Reston Master Plan Special Study

In recognition of the changing pattern of land use and development over time in Reston, facilitated in large part by the planned arrival of the Metrorail, the Reston Master Plan Special Study was initiated by the Board in 2009 and continued until 2015. County staff conducted extensive public outreach for the study over those six years. Outreach included notifying representatives of Reston's 150+ clusters, condominiums, and apartments; holding a "Reston Land Use College," which was a 4-session series of classes offered to the public to learn about the development process; establishing a Community Task Force consisting of residents and landowners, which held 200+ public meetings; holding nearly a dozen additional public community meetings and smaller staff meetings with residents and stakeholder organizations; creating a robust website for each phase of the study; and publishing weekly listserv announcements.

Phase I of the Special Study resulted in a Comprehensive Plan Amendment adopted in 2014 that focused the greatest proportion of Reston's future residential development potential in the three TSAs along the Dulles Toll Road: the existing Wiehle-Reston East Station area; the planned Reston Town Center Station area; and the planned Herndon Station area. Transit-oriented development or "TOD" is envisioned for these areas within walking distance of the Metrorail stations, which is generally considered to be about ½ mile. TOD integrates land use and transportation to create a vibrant and intense mix of uses that are more accessible to and convenient for pedestrians and bicyclists, as it is centered around significant public transit.

Phase II of the Reston Master Plan Special Study resulted in adopting a Comprehensive Plan Amendment in 2015 that identified opportunities for limited additional residential development outside of the Reston TSAs. Phase II contained a new Land Use Plan Map that maintained established residential neighborhoods and added text discouraging the consolidation of neighborhoods for redevelopment that is not in keeping with the Land Use Map. The stable residential neighborhoods and clusters within the Reston PRC District are envisioned to remain at their existing scale as recommended by the Reston Master Plan, and with a few limited exceptions, these areas were re-planned at a lower density designation than was previously shown on the Reston Master Plan to match how they were built. The revised plan also identifies several opportunities for limited additional residential development outside of the Reston TSAs. These areas are primarily within and proximate to the Village Centers. The Village Centers are currently planned for a mix of uses and are designated for high density residential. With the Phase II amendment the high density residential designation did not change, but the Plan states that the focus of any redevelopment within the Village Center should be in the non-residential mixed use area of the Village Centers. Before and throughout the Reston Master Plan Special Study process, it was known and understood that implementing these adopted changes to the Reston Master Plan would require amending the Reston PRC District provisions in the Zoning Ordinance, particularly the 13 persons/acre maximum density limitation.

Current Zoning Ordinance Provisions and Proposed Amendment

Regulating and tracking population as a zoning tool presents inherent implementation difficulties. An added complexity is that the calculation of persons/acre is based on a formula contained in the Zoning Ordinance, consisting of household size for each housing type multiplied by the number of housing units, which numbers are not directly related to actual population counts or to population estimates reported by the U.S. Census. While the household size factors by housing unit type were reviewed and updated in the Zoning Ordinance amendment approved by the Board in 2007 to reflect more current data, the use of this Zoning Ordinance formula to determine Reston's population for PRC District density purposes continues to create misunderstanding and confusion, because it is not a true representation of the current total population of Reston. In addition, it does not reflect the population of all areas of Reston, nor is it intended to. Sect. 6-308 of the Zoning Ordinance contains the Maximum Density regulations for the PRC District. Par. 1 states *"(t)he overall density for a PRC District shall not exceed thirteen (13) persons per acre of gross residential and associated commercial areas."*

Par. 2 of Sect. 6-308 contains the multiplier factors used to calculate the residential density based on unit type. They include a factor of 3.0 persons for single family detached dwellings, 2.7 persons for single family attached (townhouse) dwellings, and 2.1 persons for multiple family dwellings (apartments or condominiums). These multipliers were amended in 2007 to more closely align with Census data, and are not proposed to be revised with this amendment.

Par. 3 of Sect. 6-308 identifies the three types of residential areas to be identified on the development plans, including low, medium, or high density.

- For low density residential areas, the overall density within the entire area of a PRC District that is designated for low density is not permitted to exceed 3.8 persons/acre, and the density in any one low density area is not permitted to exceed 5 dwelling units/acre.
- For medium density residential areas, the overall density within the entire area of a PRC District that is designated for medium density is not permitted to exceed 14 persons/acre, and the density in any one medium density area is not permitted to exceed 20 dwelling units/acre.
- For high density residential areas, the overall density within the entire area of a PRC District that is designated for high density is not permitted to exceed 60 persons/acre, and the density in any one high density area is not permitted to exceed 50 dwelling units/acre.

Within the Reston Master Plan, there are now six categories of residential land uses to indicate desired residential unit types. But for purposes of calculating the maximum persons/acre in the PRC-zoned areas, all development plans must designate either low, medium, or high density. These maximum density limitations do not apply to the additional ("bonus") dwelling units above the maximum that may be allowed by the affordable and/or workforce dwelling unit provisions in the Zoning Ordinance. This is not unique to the PRC District as the bonus density attributed to the provision of affordable and workforce dwelling units is excluded from maximum density/intensity provisions in all residential zoning districts.

With the overall residential density in the PRC District limited to 13 persons/acre currently, this equates to a maximum “population” of 81,195 persons (6,245.8 acres in the Reston PRC District x 13 persons). Using the method for calculating population density as set forth in Sect. 6-308 of the Ordinance, the total number of dwelling units existing, under construction, or approved on a PRC Plan as shown on the chart below would yield a calculated population of 77,833 persons or approximately **12.46 persons/acre currently**.

2018 Reston PRC Zoning Ordinance Population Calculation:

<i>Unit type</i>	<i># Existing & Approved Units*</i>	<i>Factor</i>	<i>Total</i>
Single family detached	4,247	3.0	12,741
Single family attached	8,537	2.7	23,050
Multiple family	20,020	2.1	42,042
*Excludes bonus units per Z.O.			77,833

This results in a remaining capacity of approximately 3,362 persons (81,195 maximum persons – 77,833 persons in existing/approved units); that figure is the equivalent of approximately **1,601 multiple family dwelling units remaining** under the 13 persons/acre maximum (3,362 persons divided by a population factor of 2.1 for multiple family units).

Based on the potential growth anticipated by the Reston Master Plan, staff estimates that the additional residential development potential in the PRC District, which is projected to occur gradually over the next 30 to 40 years, will exceed the current 13 persons/acre residential density limit. Staff had previously analyzed the land use recommendations in the updated Reston Master Plan, and then subsequently adjusted those calculations based on revised assumptions, as described further below. The resultant analysis projects an estimated additional growth potential in the near term of approximately **4,018 multiple family residential dwelling units** above the 1,601 multiple family residential dwelling units remaining within the current 13 persons/acre limit. Details on these calculations are available in a table and accompanying map entitled “Reston PRC Land and Planned Residential Growth,” which are included as Appendix 1.

The methodology and revised assumptions used by staff to estimate the future potential residential growth anticipated by the land use recommendations in the Reston Master Plan vary by location. Within TSAs that are zoned PRC, residential growth potential was initially calculated based upon the planned floor area ratios (FAR) and the recommended mix of uses. In areas where a range of FARs is recommended, the residential potential was calculated using the mid-point of the FAR range. In the cases where recent development applications have already been approved in Reston’s TSAs, staff used the maximum number of residential units approved rather than rely on estimates. Staff further revised the estimates for those near-term proposed and likely to occur residential

development, based on either applications submitted or pre-application meetings held. The additional residential development potential for Lake Anne Village Center and Tall Oaks Village Center was calculated using the existing zoning approvals and Reston Master Plan guidance. The additional residential potential for the remaining Village Centers (North Point, South Lakes and Hunters Woods) was initially based on the entire area of the Village Center multiplied by the existing 50 dwelling units/acre currently permitted for these areas under the high density designation. However, based on questions raised by the community regarding Village Center redevelopment and the intent of the Reston Plan, the density potential for the remaining Village Centers was recalculated based only on the non-residential acreage of the Village Centers since the Plan's Guidelines for Village Center Redevelopment indicate that "the focus of redevelopment should be in the non-residential mixed-use area." This has resulted in an overall reduction of 886 multiple family units from the estimated future development potential. The residential development potential for areas outside the TSAs and Village Centers was calculated from existing zoning approvals or specific Reston Master Plan guidance. This includes areas such as St. John's Woods, Charter Oaks, Fairways, and the Baron Cameron North retail area.

Based on the revised assumptions noted above, staff proposes advertising an increase in the maximum persons/acre to a number between 13 and 15 persons/acre, rather than the 16 persons/acre previously proposed. While this may not fully accommodate the development potential of the Plan over the next 30 to 40-year horizon, it would add sufficient flexibility for the proposal of anticipated growth, particularly in the TSAs, in a shorter timeframe. An increase to 14 persons/acre would accommodate an additional 4,575 multiple family units above the remaining 1,601 units under the current limit; while an increase to 15 persons per/acre would accommodate an additional 7,550 multiple family units above the remaining units under the current limit. Based on the revised assumptions for expected near-term development within the TSAs and outside of the Village Centers of an additional 5,619 multiple family units, an increase to at least 14 persons/acre would be needed. However, the amendment will be advertised to provide the Board flexibility to consider a number anywhere between 13 and 15 persons/acre.

There has also been much discussion in the community about the potential for redevelopment of the two existing golf courses within Reston and whether redevelopment of one or both of the golf courses could be accommodated within the proposed increase in persons per/acre. The land area of the golf courses was not included in staff's initial or revised estimates of the potential future residential growth anticipated by the Reston Master Plan. Any redevelopment proposed for the golf courses would require a specific amendment to the Comprehensive Plan as the golf courses are currently identified on the Reston Master Plan as golf courses and are not currently planned for residential development. If there were to be a proposal to amend the Reston Master Plan to accommodate residential development on some or all of the existing golf courses, that amendment, if approved, would presumably necessitate a corresponding amendment to the PRC District to increase the maximum persons/acre population density.

Due to the higher densities planned for land zoned PRC in the TSAs, staff also proposes an amendment allowing the Board to approve residential development over the limit of 50 dwelling units/acre for properties designated on a development plan for high density in the Reston PRC District that are located within the TSAs and are more specifically planned for mixed use, as long as the specific development proposal is in accordance with the adopted Comprehensive Plan. Only a

small number of properties meet these provisions and would be eligible to request such an increase from the Board. Based on an analysis of the Reston Master Plan recommendations for those properties and feedback from the community expressing a desire to have a maximum specified in the ordinance, staff recommends that the maximum dwelling units/acre be increased from 50 to 70 dwelling units/acre only for those areas that are located within a TSA specifically identified in the Reston Master Plan for mixed use.

Community Outreach

In May 2017, staff began the process of community engagement on this proposed Zoning Ordinance amendment. Several outreach sessions were held in an effort to describe and provide the rationale for the proposed change. In addition, a detailed webpage specific to this Zoning Ordinance Amendment was created where information related to the amendment is posted. The webpage includes links to presentations, FAQs, fact sheets, responses to stakeholders and other relevant material. The webpage is available through the following link:

<https://www.fairfaxcounty.gov/planning-zoning/zoning-ordinance/reston-prc-zoning-ordinance-amendment> The largest community meeting held on October 23, 2017, was simulcast on Cable Channel 16. At these outreach meetings, a few key areas of recurring public concern were raised. In general, most of the attendees at the community meetings were vocally opposed to any increase in the maximum density limitation above the current maximum of 13 persons/acre. Many expressed concern that any increase in population above the current maximum would have a significant negative impact on the Reston community as a whole—particularly with regard to the existing transportation network, schools, parks and other infrastructure needs—and disagreed with the vision for future growth recommended in the recently adopted Reston Master Plan.

At the request of Hunter Mill District Supervisor Cathy Hudgins, staff met with representatives of the Coalition for a Planned Reston (CPR, a voluntary group of residents from the Reston Citizens Association, Reclaim Reston and Reston 20/20 organizations) and Reston Association, to discuss their concerns and to respond to requests for changes to the Reston Master Plan which were outlined in memoranda dated November 17, 2017, from Reston Association and January 31, 2018, from CPR. The request would in essence leave the 13 persons/acre overall density limit in place by replanning certain areas, particularly the Village Centers, to a maximum of 30 dwelling units/acre, despite the fact that these areas have been planned for 50 dwelling units/acre for well over 40 years. Staff responded to these requests via a letter to Supervisor Hudgins on March 28, 2018, which is included as Appendix 2.

The adopted Reston Master Plan strategically focuses growth in the TSAs, in the Reston Town Center, and to a lesser extent in the Village Centers. The Reston Master Plan now protects existing residential neighborhoods in several ways that the previous Reston Master Plan did not. Almost all neighborhoods in Reston that could have redeveloped under previous Reston Master Plan guidance were re-planned to retain their existing density and character. Further, residential land use categories, which help define neighborhood land use density, were expanded from their original three broad categories to six more detailed land use categories in large part to aid in protecting established neighborhoods. In many cases, the previous Plan's broader categories allowed more latitude for redeveloping at higher densities, while the new detailed categories limit redevelopment (in most

cases) to existing built densities. In the event a proposal is submitted to redevelop an existing neighborhood, criteria have been established to guide the review of these proposals.

Citizens voiced concerns regarding the initial proposal to allow an increase in the 50 dwelling units/acre limitation for high density areas within TSAs that have site-specific language in the Reston Master Plan anticipating additional density as determined by the Board in conjunction with the approval of a development plan. In response to those concerns, the proposed amendment has been revised to limit the maximum density permitted in the TSAs located within the Reston PRC District up to a maximum of 70 dwelling units/acre as determined by the Board in conjunction with the approval of a development plan that is in conformance with the Reston Master Plan, only for those properties in the TSAs which are specifically planned for mixed use. The original proposal by staff was to leave this determination to the discretion of the Board based on the guidance in the Reston Master Plan.

Questions were also raised about the methodology used to calculate the existing and projected residential density in Reston. Multiple factors contribute to this confusion, including the facts that the Zoning Ordinance limit on population in Reston applies only to those areas zoned PRC, that the calculations are based on a formula using multipliers for unit types instead of actual population counts, and that certain bonus density units are not counted. Because this number doesn't reflect the number of actual persons living in all of Reston, there was concern that the supporting transportation, schools, parks, and other infrastructure needs would be incorrectly based on these numbers. Staff has made it clear that these proposed population numbers are merely a zoning regulatory calculation and are not used for any other criteria. The Reston Master Plan reflects the collective vision of the many stakeholders who contributed to its development. Further, this amendment does not approve any additional dwelling units. All development proposals must go through a rigorous staff evaluation process for conformance with the Reston Master Plan and the Zoning Ordinance as well as required community review and public hearings before the Planning Commission and Board of Supervisors.

In an attempt to further address the questions and concerns of the community expressed by Reston Association and CPR, a subsequent series of subject matter-specific meetings were held in a public setting in July 2018. Hosted jointly by Reston Association and CPR, the meetings included subject matter experts from the County and Schools, as well as representatives from the Community. All the meetings were televised (or taped), and are still available for viewing online. A total of four meetings were held, focusing on transportation (July 17, 2018), parks and recreation (July 18, 2018), schools (July 24, 2018), and the land use recommendations of the Comprehensive Plan (July 30, 2018). At the conclusion of each of these meetings, common ground and some additional information requests were identified. Since the meetings, staff has provided responses to the requests for additional information regarding the topic areas, which is posted on the website at <https://www.fairfaxcounty.gov/planning-zoning/zoning-ordinance/reston-prc-zoning-ordinance-amendment>. In addition, staff supports an editorial amendment to the Comprehensive Plan that would add an overall maximum population target, provide for periodic Comprehensive Plan monitoring, and include clarifying language regarding the potential for future redevelopment of the Village Centers.

Staff believes that the additional dialogue with community representatives has been productive, but the Reston PRC District regulations do need to be amended to implement the Plan. Staff is willing to work with the community on proposing amendments to the Reston Master Plan which are editorial in nature and which do not conflict with the spirit and long-term goals established by the Plan as amended.

What if We Do Nothing?

As development approaches the existing limit of 13 persons/acre in the Reston PRC District, staff has analyzed the logical question of what would happen if the existing limit were not changed and the maximum was reached? As discussed above, the Reston Master Plan anticipates additional future residential growth, concentrated in specific areas. With the identified remaining number of dwelling units under the limit of 1,601 multiple family units, there are several pending and anticipated near-term applications for developments that, taken together, would exceed that number. If any upcoming development applications were unable to be approved in the Reston PRC District—whether due to the current limit of 13 persons/acre or the high density limit of 50 du/ac for properties planned for mixed use at a higher density in the TSAs—staff anticipates that affected landowners may seek to rezone out of the PRC District to another planned development district, such as the PDC or PRM District. There is nothing that would prevent a property owner from seeking to use these other districts to implement the recommendations in the Reston Master Plan.

Removal of property from the Reston PRC District could further exacerbate the 13 persons/acre limit, because the acreage of the district would be reduced. This may result in a gradual erosion of the effectiveness of the PRC District as a whole, while not necessarily impeding development. Rather, the other tenets of the PRC District could be lost with the conversion of the Reston PRC District to other planned development districts. As a result, Reston could lose its unique zoning designation that has helped to shape the community for the past 50 years.

Conclusion and Staff Recommendation

Changes in Reston's land development pattern was anticipated with the arrival of Metrorail and is reflected in the Reston Master Plan, which was developed with extensive public input and outreach over a five-year period. This Plan follows the county's overall, long-term strategy to support Transit Oriented Development which concentrates growth around transit stations in mixed-use activity centers. The Reston Master Plan was developed in anticipation that most growth would occur over the next 30 to 40 years in these transit station areas as well as in the existing Village Centers. The proposed Zoning Ordinance amendment is a key step toward the implementation of this long term vision for Reston. Therefore, staff recommends amending the density provisions set forth in Sect. 6-308 of the Zoning Ordinance with an effective date of 12:01 a.m. on the day following adoption.

PROPOSED AMENDMENT

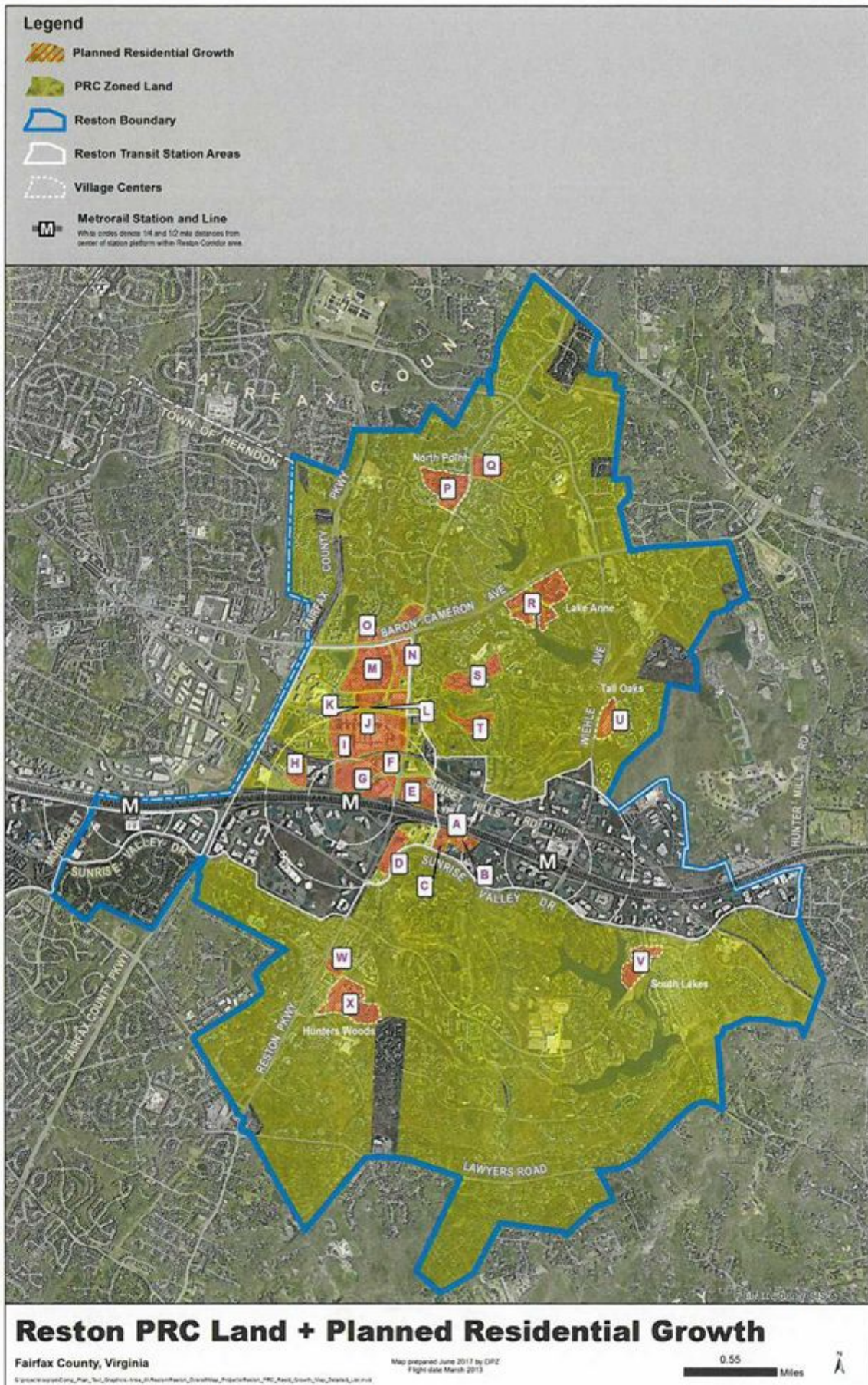
This proposed Zoning Ordinance amendment is based on the Zoning Ordinance in effect as of December 4, 2018, and there may be other proposed amendments which may affect some of the numbering, order or text arrangement of the paragraphs or sections set forth in this amendment, which other amendments may be adopted prior to action on this amendment. In such event, any necessary renumbering or editorial revisions caused by the adoption of any Zoning Ordinance amendments by the Board of Supervisors prior to the date of adoption of this amendment will be administratively incorporated by the Clerk in the printed version of this amendment following Board adoption.

1 Amend Article 6, Planned Development District Regulations, to amend Part 3, PRC-Planned
2 Residential Community District, by amending Par. 1 through 5 of Sect. 6-308, Maximum
3 Density, to read as follows:
4

- 5 1. The overall density for a PRC District ~~shall not~~ may not exceed thirteen (13) persons per acre of
6 gross residential and associated commercial areas; except that within the Reston PRC District,
7 which includes a Transit Station Area planned for Mixed Use, the overall density may not exceed
8 (advertised to allow any number between 13 up to 15) persons per acre.
9
- 10 2. In computing density, a factor of 3.0 persons ~~shall~~ will be used per single family detached
11 dwelling; 2.7 persons per single family attached dwelling; and 2.1 persons per multiple family
12 dwelling.
13
- 14 3. Residential densities in a PRC District ~~shall~~ will be designated low, medium or high on the
15 approved development plan.
16
 - 17 A. Low: The overall density within the entire area of a PRC District that is designated for low
18 density ~~shall not~~ may not exceed 3.8 persons per acre of gross residential area. Further, the
19 density in any one low density area ~~shall not~~ may not exceed five (5) dwelling units per acre.
20
 - 21 B. Medium: The overall density within the entire area of a PRC District that is designated for
22 medium density ~~shall not~~ may not exceed 14 persons per acre of gross residential area.
23 Further, the density in any one medium density area ~~shall not~~ may not exceed twenty (20)
24 dwelling units per acre.
25
 - 26 C. High: The overall density within the entire area of a PRC District that is designated for high
27 density ~~shall not~~ may not exceed 60 persons per acre of gross residential area. Further, the
28 density in any one high density area ~~shall not~~ may not exceed fifty (50) dwelling units per
29 acre. However, for developments located in a Transit Station Area planned for Mixed Use
30 within the Reston PRC District, the Board, in conjunction with the approval of a
31 Development Plan, may approve a density up to (advertised to allow any number from 50 up
32 to 70) dwelling units per acre, when the proposed development is implementing the site-
33 specific density and other recommendations contained in the adopted comprehensive plan.

1
2 For the purposes of this district, density area ~~shall~~ means a development unit within an area
3 designated on the approved development plan for low, medium, or high density.
4

- 5 4. In computing average density on any development plan, subsequent PRC plan or final plat of a
6 part of a PRC District, any excess in land area over that required to support an average density of
7 thirteen (13) persons per acre or (advertised to allow any number from 13 up to 15) persons per
8 acre within the Reston PRC District in any final plat previously recorded may be included. As
9 each plan and subsequent final plat is submitted, the overall density of all areas shown on
10 recorded final plats within the PRC District ~~shall~~ will be recomputed so that the average density
11 within the recorded plats of sections of the PRC District ~~shall never at any time in the history of~~
12 ~~the development does not~~ does not exceed a density of thirteen (13) persons per acre or (advertised to
13 allow any number between 13 up to 15) persons per acre within the Reston PRC District.
14
- 15 5. The provisions of Paragraphs 1, 3 and 4 above ~~shall~~ do not apply to affordable and market rate
16 dwelling units which comprise the increased density pursuant to Part 8 of Article 2 or to
17 proffered bonus market rate units and/or bonus floor area, any of which is associated with the
18 provision of workforce dwelling units, as applicable.



Reston PRC Planned Dwelling Unit Growth							
Map Identifier	Site Name	Existing & Approved Units*	Revised Planned Units**	Revised Total Units	TSA, Village Center, or Other	Revised Planned Units Totals	
A	1941 & 1950 Roland Clark	-	263	263	T	TSA:	2,701
B	Pond Office Building Site	-	300	300	T	Other:	2,918
C	RP 11720, LC (Sekas West)	54	-	54	O	VCs:	3,145
D	Reston Heights	498	-	498	O		
E	Oracle	457	-	457	O	Total TSAs and Other Only:	
F, G	Residential/Transit Station Mixed Use	1,688	-	1,688	T	5,619	
H	Dwoskin	-	469	469	T		
I, J	Urban Core South, North	1,717	1,619	3,336	T		
K	Winwood Childcare	125	-	125	O		
L	South of Library	-	50	50	T		
M	Reston Town Center North	30	2,370	2,400	O		
N	Spectrum	1,422	-	1,422	O		
O	Baron Cameron Retail	-	-	-	O		
P	North Point Village Center	154	1,212	1,366	V		
Q	St Johns Wood	250	188	438	O		
R	Lake Anne Village Center	1,466	-	1,466	V		
S	Fairway	804	-	804	O		
T	Charter Oaks	261	360	621	O		
U	Tall Oaks Village Center	156	-	156	V		
V	South Lakes Village Center	235	724	959	V		
W	Colts Neck	91	-	91	O		
X	Hunters Woods Village Center	494	1,209	1,703	V		
Y	Four Seasons	11	-	11	O		
TOTAL DWELLING UNITS		9,913	8,764	18,677			

*These units have been included in the overall PRC District residential density calculation of 12.46 persons per acre.

* *These are the estimated number of dwelling units recommended by the Comprehensive Plan within Reston's PRC zoned land, for those areas where growth is recommended to occur.
As adjusted in 2018 for changed assumptions to more precisely reflect known or likely nearer term proposals.
The overall available Comprehensive Plan capacity did **not** change from our previous assessment, and **still remains**.



County of Fairfax, Virginia

To protect and enrich the quality of life for the people, neighborhoods and diverse communities of Fairfax County

March 27, 2018

Ms. Catherine M. Hudgins
Hunter Mill District Supervisor
12000 Bowman Towne Drive
Reston, VA 20190

Supervisor Hudgins,

As you requested, planning staff has reviewed the letters from the Reston Association (RA) and the Coalition for a Planned Reston (CPR) that request changes to the Comprehensive Plan for Reston (hereafter referred to as the Reston Master Plan) and actions regarding its implementation. The proposed changes and actions are outlined in the letter from RA dated November 17, 2017 (Attachment 1) and the letter and attachment from CPR dated February 5, 2018 and January 31, 2018, respectively (Attachment 2).

Many of the concerns raised by RA and CPR are associated with their desire that you (and the Board of Supervisors) initiate an amendment to the newly adopted Reston Master Plan. As you know the Reston Master Plan was the result of a six year planning study that started with a first phase that evaluated land use changes in the areas around the three new Silver Line Metrorail stations in Reston (Wiehle-Reston East, Reston Town Center and Herndon). That phase was guided by a 50 member Task Force (including alternates) appointed by the Board of Supervisors. The task force was comprised of community residents and representatives of community organizations, landowners and businesses. The task force met from 2010 to 2014 in almost 200 meetings. All meetings were open to and attended by members of the public. Each meeting included an open comment period that allowed anyone in the community an opportunity to direct questions and comments to the Task Force and staff. There were also several communitywide meetings that focused on topical issues like the future of the transit station areas and provided updates on the proposed plan recommendations under development. The second phase of the Reston planning process began in 2014 and was organized around community meetings that solicited ideas and comments on the desired future of Reston's neighborhoods and village centers. Drafts of the newly proposed plan language were openly discussed, and posted on line for broad community input and participation. All interested parties were given the opportunity to review and provide comments prior to consideration and action by the Planning Commission and Board of Supervisors.

Excellence * Innovation * Stewardship
Integrity * Teamwork * Public Service

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Recognizing the time, energy and community commitment that go into our major multi-year land use studies, it has long been the county's practice not to amend these new plans within the first five years of their adoption. The current North County Site Specific Plan Amendment Process, which includes the Hunter Mill District, excludes Reston for this reason. Staff continues to support this practice and cannot support changes to land use, density or intensity recommendations in the Reston Master Plan for the Transit Station Areas until after 2019 and for Reston's neighborhoods and village centers until after 2020. Staff is open to considering changes to the Reston Master Plan that clarify recommendations, correct oversights or are editorial in nature.

This letter is organized around the nine points raised by RA followed by the points raised by CPR. Some of the changes proposed by RA and CPR are similar, so where a similar response is appropriate, it is so noted.

RA Point 1 – Amend the Reston Master Plan to add back a population cap.

The original Land Use Plan Map for Reston included a table "Population Data" that referenced population ranges for portions of Reston and a total "not to exceed" 78,000 people. Staff can support the inclusion of a future population target as part of the vision for Reston as was done in the plan for Tysons. In our view this target should not be referred to as a cap, but as an articulation of the future vision for Reston's growth.

The monitoring of Reston's population growth should be based on information from the U.S. Census, rather than using the formulas in the PRC provisions of the Zoning Ordinance. This will more accurately reflect the actual population in Reston by using a widely accepted standard of measurement.

RA Point 2 – Provide a statement that the Reston Village Centers are planned to reflect land uses that are there today and that redevelopment should only be considered in the context of a future amendment to the Comprehensive Plan.

Each of Reston's village centers (with the exception of Lake Anne) has a "baseline" recommendation that is meant to reflect the existing development. This recommendation is for neighborhood serving retail and service uses up to .25 FAR, integrated with office, institutional uses and residential development. In addition, these village centers have the opportunity to redevelop according to the "Guidelines for Village Center Redevelopment" set forth in the Reston Master Plan. These guidelines outline the process and planning objectives that should be achieved when considering proposals to redevelop Reston's village centers. The guidelines indicate that any property owner contemplating redevelopment will "need to work with the community and Fairfax County to create a detailed plan for the property."

Staff believes these guidelines refer to the submission of a development plan associated with a zoning application and need not trigger an amendment to the Reston Master Plan. The village centers are currently planned for a mix of uses and are designated for high density

residential. A development plan that shows how the proposed future redevelopment will achieve the planning objectives for Reston's village centers satisfies the documentation needed for staff, stakeholder and legislative review.

One area where the plan for the village centers could be clarified is to more explicitly state that redevelopment is recommended to occur in the existing non-residential or mixed-use areas. As written the plan indicates that "Each of the Village Centers consists of a non-residential mixed use area and adjacent residential uses. The focus of redevelopment should be in the non-residential mixed use area." The adjacent residential uses are stable residential neighborhoods and are not targets for future redevelopment. While this is implied by the current text, the guidance could be strengthened and clarified to indicate that these areas are not the focus of redevelopment and that the residential density allowed with redevelopment should be calculated on the area subject to redevelopment and not the entire village center.

RA Point 3 – Similar to the Tysons Plan, initiate an amendment to the Reston Plan that requires periodic Plan updates.

The update process for the Tysons Plan was established as one of the follow-on motions at the time the plan was adopted. Staff has been monitoring the implementation of the Reston Plan and is prepared to provide a similar progress report which can report on such things as:

- existing development;
- land use changes over time;
- rezoning actions and development activity;
- growth in population and jobs;
- affordable/workforce housing;
- transportation improvements and funding;
- Silver Line rail service;
- transit service;
- pedestrian and bike enhancements;
- green buildings and energy and resource conservation; and,
- public facilities and parks.

RA Point 4 – Request that the Reston Network Advisory Group fully review the current Reston Transportation Network Analysis assumptions and methodology, addressing questions raised by the Reston community.

County staff and the Reston community engaged in the Reston Transportation Network Analysis for over two years. The assumptions made for trip generation were discussed with both the Advisory Group and with the Stakeholders Group, and are consistent with the guidance in the Comprehensive Plan. The methodology was well vetted, was transparent, and was presented to the Advisory Group and Stakeholders at all decision making points. Staff is currently working

on the Final Report, and does not believe that there are any outstanding aspects of the analysis not already vetted with the Advisory Group. However, if members of the community have questions, or if the information provided in the Final Report is unclear, county staff is willing to meet with the community to answer any questions.

RA Point 5 – Implement a collaborative mechanism for a continued dialogue to establish a realistic and detailed plan to increase the number and capacity of recreational facilities within Reston.

Each new development in Reston is evaluated as part of the development review process to determine how each project can address the park and recreation recommendations in the Reston Master Plan. Through this process the county has secured commitments for on-site urban park spaces as well as monetary contributions to Fairfax County that can be used to upgrade recreational facilities in the Reston area. The plan sets a goal of 12 new athletic fields to serve Reston and staff is committed to working with applicants and the community to achieve this goal.

The plan recognizes that several entities provide park and recreation facilities and amenities including the Fairfax County Park Authority, the Reston Association, the Reston Community Center, and the Northern Virginia Regional Park Authority. County staff is open to working collectively with all of these groups and the Reston community to plan for how best to meet future park and recreation needs. We would suggest that the Hunter Mill District Planning Commissioner and Park Authority Board Member be a part of these discussions.

RA Point 6 – Initiate an amendment to the Reston Plan to add assertive statements that infrastructure capacity must be increased at the same time as new development occurs.

The plan currently has language which indicates that the provision of future facilities will need to be coordinated with the rate at which planned development occurs. It also calls for the development of a phasing plan linking future development with specific improvements with the stated goal of balancing projected development with infrastructure and public facilities over time.

We feel that this plan guidance is appropriate and that what is needed at this time is the development of the phasing plan referenced in the adopted plan. This action is in line with the points in the letter calling for collaboration and actions regarding the provision of future park/recreation, schools and transportation facilities.

RA Point 7 – Direct staff to collaborate with public schools staff and the Reston community to establish a realistic plan for the provision of increased school capacity in Reston.

Staff supports this recommendation and is willing to partner with Fairfax County Public Schools staff and the Reston community to look at future development and how this growth will be accommodated.

RA Point 8 – Initiate an amendment to the Reston Master Plan to remove the road connection between American Dream Way and Isaac Newton Square.

Staff believes the proposed future roadway is important to provide needed connectivity for planned redevelopment of the Isaac Newton Square area, and will provide congestion relief by serving as an alternative route to Sunset Hills Road. If built, the connection could reduce congestion at the Sunset Hills/Wichle Avenue intersection. This future road connection has not been designed, so its exact configuration or potential impacts to the golf course or environmentally sensitive land in the area is not known. The County has no immediate plans to initiate design work on this road because there are other higher priority transportation network improvement projects that we are advancing. However, in the event that this road connection is advanced to the design stage, either as part of private redevelopment or as part of a public project, there will be many opportunities for the community to have input into the process and provide feedback. As with any new roadway design the County will work to minimize negative impacts on existing uses (such as the golf course) and the environment. In our view, the planned road being shown as part of the conceptual street network does not negatively affect the viability of the Hidden Creek Golf Course.

RA Point 9 - Initiate an amendment to the Reston Plan to change the high density multi-family land use map category from 50+ du/ac (i.e. unlimited) to the maximum necessary to accommodate the two properties shown with this designation.

Staff acknowledges that the land use map category 50+ might be viewed as allowing unlimited development on the sites with this designation, although this was not the intent. Staff is willing to look at how best to amend the plan to clarify the limits of this category.

CPR - Affordable Housing

The objectives of the Coalition with respect to affordable housing are: making sure that 20% of all new housing is affordable; assuring that affordable units called for in the plan are built in Reston; and, creating a Reston Housing Trust Fund to facilitate financing of affordable housing. To achieve this 20 percent objective, the Coalition would like to incorporate plan text that was adopted for Tysons and apply it to Reston. The adopted Reston Master Plan calls for the provision of affordable and workforce housing in the Transit Station Areas based on a sliding scale tied to the intensity of development as determined by its maximum Floor Area Ratio (FAR). At a 1.0 FAR the percentage of affordable/workforce housing to be provided is 12 percent, increasing to 18 percent at 4.0 FAR. Intensity above 4.0 FAR would need to provide 20 percent affordable/workforce units. This approach to Reston was developed recognizing that development in Tysons has the opportunity for much higher intensities as the plan for Tysons sets no maximum intensity within a quarter mile of the station and approvals in these areas have

ranged as high as 8.0 FAR. In addition, the Reston Master Plan has a provision for a \$3.00 per square foot contribution to affordable housing for all non-residential development. This is the same as Tysons and will help fund affordable housing in Reston.

To change from the sliding scale that was adopted to a flat 20 percent affordable housing requirement would be a significant change to the land use recommendations for Reston's Transit Station Areas and, as such, is not supported by staff. The sliding scale approach was developed to recognize that the ability to provide affordable and workforce housing is linked to the density/intensity that is planned.

Reston has a long history of being an inclusive community and as such is one of the most critical areas in the county for preserving as well as creating new affordable housing opportunities. However, the CPR recommendation to create a separate Reston Housing Trust Fund is not supported as it could have the unintended consequence of putting the county at a disadvantage when faced with opportunities to provide affordable housing. Should there be an opportunity in the future to preserve affordable housing in Reston, as was done with the Crescent Apartments at Lake Anne, there could be pressure to limit funding to whatever is available in the Reston housing fund and not bring other sources to bear because of the implication that to do so would be at the expense of other areas of the county. The county's ability to provide affordable housing is directly linked to its ability to tap a variety of funding sources when needed and having separate pots of money for different areas of the county will hamper this needed flexibility. Therefore, staff does not support the idea of establishing a separate Reston Housing Trust Fund.

CPR – Land Use Designations and Residential Land Use Categories

The Coalition would like to delete unlimited density potential of the high density category; lower the planned density in all categories; and set overall maximum Reston population at 120,000. Staff supports the concept of clarifying the long term vision of Reston by including a future population estimate or target for future growth. This was an element of the previous Reston Land Use Plan and we believe this should be corrected. We are not prepared at this time to say what the population figure should be, but we are prepared to work with the community on this type of amendment should it be authorized.

The proposal to lower the maximum density of the Medium-density Multi-family category from 50 to 30 dwelling units per acre (DU/AC) is a significant change in the land use density recommendations of the adopted plan and is not supported by staff. However, we do recognize that the High-density category, which is characterized as 50+ on the Land Use Map may need to be clarified as this category was never meant to convey a recommendation for unlimited density. Staff is willing to work with the community to see how this element of the plan might best be clarified.

CPR - Guidelines for Village Center Redevelopment

The Coalition's objectives for village center redevelopment include: keeping redevelopment to neighborhood scale; keeping redevelopment in mixed-use areas only; continuing the planned involvement of the community in any redevelopment; and, sustaining the economic viability of the remaining three village centers. To achieve the neighborhood scale objective, the Coalition proposes to limit redevelopment to Medium-density Multi-family, at a density range of 21-30 DU/AC. This is a significant departure from the High-density Multi-family designation at a maximum density of 50 DU/AC density that is recommended for the village centers and is not supported by staff. The village centers have long had this high density designation and maximum density, and there is little justification provided to support revising it other than maintaining that this would be more reflective of the "neighborhood scale" referenced in the plan. There is also a Coalition recommendation that any redevelopment of the village centers should result in 25 percent open space based on the acreage of the mixed use area of the village center, which is also a significant change to the land use recommendations for village centers and is not supported by staff.

The Coalition would limit redevelopment to the existing mixed use areas of the village centers. As stated in the response to RA Point 2, this is an area where the Reston Master Plan might need to be clarified. The adjacent residential areas while part of the village center are stable residential neighborhoods and are not targets for future redevelopment. Staff supports looking at the residential areas within each village center for the purpose of better defining the area that is subject to redevelopment and clarifying that the residential density allowed with redevelopment should be calculated on the area subject to redevelopment and not the entire village center.

CPR - Implementation - Monitoring, Regulation, Partnerships and Phasing

With respect to implementation of the Reston Master Plan the Coalition wants assurance that development is tracked and that infrastructure occurs with the availability of new development. Staff has been monitoring the implementation of the Reston Plan and will commit to providing a progress report for Reston similar to the report that is compiled for Tysons in October/November of 2018. In addition, we will work with the Reston community in identifying when new public facilities are needed and how these facility needs might best be addressed through the Capital Improvement Program (CIP) for schools and other public facilities.

CPR Phasing Transportation and Public Facilities Development

The plan currently has language that indicates that the provision of future facilities will need to be coordinated with the rate at which planned development occurs. It also calls for the development of a phasing plan linking future development with specific improvements with the stated goal of balancing projected development with infrastructure and public facilities over time.

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We feel that this plan guidance is appropriate, and that what is needed at this time is the development of the phasing plan referenced in the adopted Reston Master Plan. This action is in line with the points in the RA and CPR letters calling for collaboration and actions regarding the provision of future park/recreation, schools and transportation facilities.

CPR - Parks, Recreation and Cultural Facilities

See response to RA Point 5.

CPR - Reston Neighborhoods

The Coalition has expressed the desire to delete current language that provides a redevelopment option for St. Johns Wood. This multi-family development was designated high density residential on the previous Reston Master Plan and the property owners submitted a nomination to keep that designation as part of the master plan update. Their nomination was considered during that process and the option in the adopted plan reflects support for redevelopment under certain conditions outlined in the plan. A development application to implement this redevelopment option has been filed and has been reviewed by staff and the Reston community. The application is currently in a deferred status at the request of the applicant.

To delete the redevelopment option for St Johns Wood apartments as requested by the Coalition would represent a change in land use density and is not supported by staff.

CPR - Mapped Road Across Hidden Creek Country Club

See response to RA Point 8.

In summary, staff is open to clarifying several areas in the Reston Master Plan as noted in our response and continuing to work with the Reston community to address their concerns about the future. However, staff does not support the proposed changes to the Reston Master Plan that would affect land use, density or intensity recommendations.

Please feel free to contact me at 703-324-1110 if you have any questions. We are available to meet with you and representatives of the Reston community, including RA and CPR, to work through issues and concerns and to continue the collaborative and cooperative working relationship that we have had with you and the Reston community over the years.

Sincerely,



Fred R. Selden Director,
Department of Planning and Zoning

Letter to Supervisor Hudgins
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cc: Sharon Bulova, Chairman, Fairfax County Board of Supervisors
John Carter, Hunter Mill Planning Commissioner
James Hart, At-Large Planning Commissioner
Robert A. Stalzer, Deputy County Executive
Tom Biesiadny, Director, FCDOIT
Leslie Johnson, Zoning Administrator, DPZ
Marianne Gardner, Planning Division Director, DPZ
Cathy Belgin, Deputy Zoning Administrator, DPZ
Regina Coyle, Special Projects Coordinator, DPZ