

Fund 40080: Integrated Pest Management Program

Mission

To suppress forest pest infestation and pests of public health concern throughout the County through surveillance, pest and insect control, as well as public information and education, so that none of the County tree cover is defoliated and human morbidity and mortality are minimized while protecting the environment.

Connection to the Countywide Strategic Plan

The Fairfax County Board of Supervisors adopted the first-ever Countywide Strategic Plan on October 5, 2021. The Countywide Strategic Plan serves as a road map to help guide future work, focusing on the 10 Community Outcome Areas that represent the issues of greatest importance to the community, and uses our One Fairfax equity policy to invest in people and places that have limited access to opportunity. On February 20, 2024, the second Annual Report on the work of the strategic plan was released to the public. The report contains point-in-time progress highlights for each of the community outcome areas, plus three data dashboards and data stories that are being replicated across all of the outcome areas, and a number of additional initiatives to embed the elements of the plan within department-level work. The report also includes a Year Three Implementation Model, which will engage hundreds of County subject-matter experts to identify and champion the specific strategies that will move forward to implementation under the guidance of the Board of Supervisors. For more information on the Countywide Strategic Plan, please visit www.fairfaxcounty.gov/strategicplan. Fund 40080, Integrated Pest Management Program, primarily supports the following Community Outcome Areas:



Community Outcome Area	Vision Statement
Environment and Energy	<i>All people live in a healthy sustainable environment.</i>
Healthy Communities	<i>All people can attain their highest level of health and well-being.</i>

Focus

Fund 40080, Integrated Pest Management Program, includes two separate programs – the Forest Pest Program (FPP) managed by Stormwater Services and the Disease-Carrying Insects Program (DCIP) managed by the Health Department. Integrated Pest Management (IPM) is an ecological approach to pest control that combines appropriate pest control strategies into a unified, site-specific plan. The goal of an IPM program is to reduce pest numbers to acceptable levels in ways that are practical, cost-effective, and safe for people and the environment. FPP focuses on preventing the spread of forest insects and diseases approved by the state to be controlled in the County. DCIP focuses on protecting residents from public health pests and maintaining a low incidence of the West Nile virus, Lyme disease, and other tick-borne and mosquito-borne diseases as the prevention of epidemics and spread of disease is one of the core functions of the Health Department.

Fund 40080: Integrated Pest Management Program

A countywide tax levy financially supports Fund 40080 activities, and this levy is subject to change annually due to funding requirements based on the level of infestation. Since FY 2001, the Board of Supervisors approved tax rate has been \$0.001 per \$100 assessed value and has provided support for both the Forest Pest and the Disease-Carrying Insects Programs. In FY 2025, the same tax rate, along with the existing fund balance, will continue to support both programs.

Forest Pest Program

The Forest Pest Program is a cooperative program with the United States Department of Agriculture (USDA) Forest Service and the Virginia Department of Agriculture and Consumer Services (VDACS). VDACS maintains a list of insects and diseases that are eligible for control by this program; however, the FPP is tasked with monitoring and providing control of these insects and diseases. Currently VDACS has approved six insects and two diseases for inclusion on the list of insects and diseases that can be controlled. They are the spongy moth, cankerworm, emerald ash borer, hemlock woolly adelgid, Asian long-horned beetle, spotted lanternfly, sudden oak death, and thousand cankers disease of black walnut. The proposed treatment plan and resource requirements for all listed pests are submitted annually to the Board of Supervisors for approval.

Research has shown that by slowing the spread of an invasive insect, overall control costs can be reduced. Agricultural quarantines are an effective method implemented to eradicate or slow the spread to other areas. The quarantines currently in effect in the County are intended to slow the spread of the target insects and not intended to eradicate them. In the United States, eradication is only attempted when an invasive species is discovered early, and its populations are small enough to be contained and completely eliminated. Forest pest quarantines are not an unusual or a historically recent method of controlling the spread of pests.

Throughout the year, staff conducts an extensive outreach program with the goal of educating Fairfax County communities about pest suppression methods and measures that they may take to alleviate potential forest pest population infestations. Funding has also been allocated for the removal and/or remediation of hazardous trees. This activity will be limited to instances where the hazard is a direct result of pests included in the list of insects and diseases eligible for control by the program. Additionally, funding has been allocated for the removal and remediation of tree of heaven. Tree of heaven is a preferred host tree for spotted lanternfly and its removal is thought to be an effective management strategy for minimizing the impact of this pest.

Spongy Moth

In FY 2023, spongy moth, formerly known as gypsy moth, (*Lymantria dispar*) larvae populations remained very low. There was no measurable defoliation reported in Fairfax County. Active control programs in conjunction with the naturally occurring fungal pathogen *Entomophaga maimaiga* may explain the extremely low spongy moth populations in Fairfax County and other areas. Staff continue to monitor spongy moth, but no control treatments have been applied in recent years. Spongy moth populations are cyclical, and it is not uncommon for outbreaks to reoccur.

The spongy moth was first quarantined by state and federal governments in 1912 and continues to be quarantined today. More information about spongy moth can be found on this webpage: <https://www.fairfaxcounty.gov/publicworks/trees/spongy-moth>.

Fund 40080: Integrated Pest Management Program

Fall Cankerworm

Fall cankerworm (*Alsophila pometaria*) is an insect native to the eastern United States that feeds on a broad variety of hardwood trees. Periodic outbreaks of this pest are common, especially in older declining forest stands. The Mount Vernon, Mason, and Franconia (previously Lee) magisterial districts have most recently experienced the most severe infestations and associated defoliation. Staff observed population outbreak levels in the winters of 2012 and 2013 and declining populations since 2014. No treatment was required in calendar year 2022 and the first half of calendar year 2023.

FPP conducted an extensive defoliation survey to measure the damage caused by fall cankerworm in May 2023. The purpose of this survey was to determine those areas of Fairfax 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 contributed to knowledge of overall cankerworm population dynamics in Fairfax County as well as locating areas of concern to be targeted in the ensuing year's fall cankerworm banding survey. The defoliation surveys for fall cankerworm were done in grids in the known areas of fall cankerworm activity in the southeastern portion of the County. Defoliation was quantified using a visual survey at each grid point. The results of this survey indicated that there was no significant defoliation from fall cankerworm in calendar year 2023.

The FY 2025 budget provides capacity to treat 500 acres of ground treatment and up to 5,000 acres of aerial treatment, should insect surveys conducted between November 2023 and January 2024 indicate the need. More information about fall cankerworm can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/fall-cankerworm>.



Emerald Ash Borer

The emerald ash borer (EAB), *Agrilus planipennis*, is an exotic beetle introduced from Asia that was first discovered in the State of Michigan in the early 2000s. This beetle attacks ash trees (*Fraxinus sp.*) and can cause mortality in native ash species in as little as two years. Recently, researchers in Ohio also observed EAB attacking white fringetree (*Chionanthus virginicus*), a close relative of ash. In July 2008, infestations of emerald ash borer were discovered in Fairfax County and the County was put under federal quarantine for emerald ash borer. In the summer of 2012, the Virginia Department of Agriculture and Consumer Services determined that the entire state was generally infested so it became part of the USDA quarantine; however, the USDA

removed the federal domestic EAB quarantine regulations effective January 14, 2021, because the domestic quarantine was not proven effective in stopping its spread.

Trapping efforts revealed that beetle populations extend to all areas of Fairfax County. Staff is responsible for educating the public on how to manage the impending mortality and replacement of thousands of ash trees. Education efforts emphasize hiring a private contractor to remove dead and dying trees and options for effective pesticides that may conserve ash trees in the landscape. More information about EAB can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/emerald-ash-borer>.

In March 2015, the Board of Supervisors authorized staff to begin a control program for EAB on trees on publicly owned land, including fire stations, parks, schools, and libraries. Since 2015, staff have treated approximately 200 ash trees for EAB. Yearly assessments are made on treated trees to evaluate their health and crown conditions based on parameters set in the EAB Management Plan.

Fund 40080: Integrated Pest Management Program

Since 2016, FPP has made efforts to request and release emerald ash borer parasitoid wasps from the USDA: *Oobius agrili*, *Spathius agrili*, and *Tetrastichus planipennis*. As part of the release process, an inventory was conducted of ash stands within the County. Several potential sites were identified, and the FPP has released emerald ash borer parasitoid wasps on several County properties. In accordance with the EAB parasitoid release agreement, staff will continue to monitor and report on the establishment of these wasps as part of a national network at www.mapbiocontrol.org. FPP planted ash seedlings in release sites in an effort to reestablish the County ash population in calendar year 2021. Staff will continue to identify additional areas that qualify for parasitoid release. The wasps were produced and supplied from the USDA's Animal and Plant Health Inspection Service (APHIS) at the Plant Protection and Quarantine (PPQ) EAB Parasitoid Rearing Facility in Brighton, Michigan. For more information on the parasitoids, please call 866-322-4512.

Thousand Cankers Disease

Thousand cankers disease (TCD) is caused by a fungal pathogen resulting from an association of a fungus (*Geosmithia morbida*) and the walnut twig beetle (WTB) (*Pityophthorus juglandis*) native to the southwestern United States. In August 2010, the disease was detected in black walnut trees in Tennessee. The following year, TCD was reported in central Virginia, then Fairfax and Prince William counties in 2012. This disease complex causes only minor damage to western walnut species; however, Eastern black walnut trees (*Julgans nigra*) are more susceptible and infested trees die after many years. Following disease discovery, VDACS listed Fairfax County under state quarantine that prohibited the transportation of walnut wood and its products. More information about the statewide quarantine related to TCD can be found on this webpage:

<https://law.lis.virginia.gov/admincode/title2/agency5/chapter318/>. There is no existing federal regulation regarding TCD.

To monitor the insect's presence more closely, staff deployed WTB traps in confirmed locations for calendar year 2023. WTB was positively identified from the traps that were deployed. Staff continue to monitor walnut tree health and follow the disease status elsewhere in Virginia. More information about TCD can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/thousand-cankers-disease>.

Sudden Oak Death

Sudden oak death (SOD) is caused by a fungus (*Phytophthora ramorum*) that has resulted in wide-scale tree mortality in the western United States since 1995. Fortunately, this disease has been found only in isolated locations in the eastern United States and officials feel that these detections have been contained. Diligent monitoring is critical in slowing the spread of this disease and testing methods have been developed. Consequently, staff have implemented these monitoring methods in areas of the County where nursery stock that could have been shipped from areas known to have the pathogen is being sold. Staff continue to educate private and public groups on this disease and its control. More information on SOD can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/sudden-oak-death>.

Asian Longhorned Beetle

The Asian longhorned beetle (ALB) (*Anoplophora glabripennis*) is an invasive, wood-boring beetle that, like EAB, has the potential to have drastic economic and social impacts should it be introduced in Fairfax County. The larvae will kill trees by boring into the heartwood and disrupting the tree's nutrient flow. Imported into the United States via wood packing material used in shipping, infestations of ALB in or near Chicago, New York, Boston, and Ohio have been discovered since the mid-1990's. In June 2020, an infestation was found in Hollywood, South Carolina. These pests will infest many hardwood tree species but prefer maple species, one of the predominant trees in Fairfax County's urban forest ecosystem. According to the United States Forest Service, most of the infestations found

Fund 40080: Integrated Pest Management Program

in the United States have been identified by tree care professionals and informed homeowners. More information on ALB can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/asian-longhorned-beetle>.

Hemlock Woolly Adelgid

Hemlock woolly adelgid (HWA) (*Adelges tsugae*) is a sap-feeding insect that infests and eventually kills eastern hemlock trees. Staff employ various control options for this pest, including injected pesticide treatments and releasing predatory insects that feed on HWA. Native eastern hemlock is relatively rare in Fairfax County. Staff will continue to inventory the natural stands of eastern hemlock. Staff continue to manage trees in two native stands in the Dranesville and Springfield magisterial districts. Staff monitored the condition of treated hemlocks in calendar year 2023. Staff are continuing to research management options for hemlocks and HWA. More information on HWA can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/hemlock-wooly-adelgid>.

Spotted Lanternfly

Spotted lanternfly (SLF) (*Lycorma delicatula*) is an insect native to Asia and was found in suburban Philadelphia in 2014. In January 2018, this insect was found in Frederick County, Virginia, and since then it has been found in many other localities in Virginia. SLF was found in Fairfax County through in-house monitoring efforts in 2022. Since its initial discovery, staff have observed an increase in the population and spread to new areas of the County. Due to the destructive nature of this pest, VDACS in cooperation with UDSA APHIS, have begun eradication efforts in areas with known infestation.

VDACS has established a quarantine for Warren County, Clarke County, and Frederick County, Virginia, as well as the City of Winchester, Virginia. Under the quarantine, the movement of articles capable of transporting spotted lanternfly is restricted. Unfortunately, SLF has been found around the Mid-Atlantic including Pennsylvania, West Virginia, Maryland, and Delaware. All states with known SLF infestations have their own quarantine in hopes to limit the spread of this pest.

This insect feeds on a broad range of host trees and has a strong preference for tree of heaven (*Ailanthus altissima*). Tree of heaven is an invasive tree species native to Asia. This insect has not yet established itself in Fairfax County but when it does, it has the potential to be a significant nuisance. Staff monitored this insect and inventoried tree of heaven in high-risk introduction areas in calendar year 2023. The removal of tree of heaven could minimize the negative impact of this pest once it arrives. The FPP is conducting a pilot program to remove tree of heaven on County properties.

Staff anticipates the need for significant public education and community engagement will be in high demand once spotted lanternfly is established in the County. Given the broad host range for this pest, staff in the Urban Forest Management Division (UFMD) anticipates most residents in the County will be impacted. Staff has created a mailbox for residents to report SLF sightings: ReportSLF@Fairfaxcounty.gov. More information on SLF can be found on this webpage: <https://www.fairfaxcounty.gov/publicworks/trees/spotted-lanternfly>.

Beach Leaf Disease

Beech leaf disease (BLD) is a relatively recent foliar disease of American beech trees. Since 2012 this disease has spread from Ohio to Pennsylvania, New York, New Jersey, Connecticut, Massachusetts, Rhode Island, New Hampshire, Maine, West Virginia, and the Canadian Province of Ontario. In 2021, it was confirmed in Prince William County and was found in Fairfax County the summer of 2022. Diagnostic efforts have revealed an association with a foliar-feeding nematode (*Litylenchus crenatae*) that appears to be spread by birds. Fungal and bacterial pathogens may also

Fund 40080: Integrated Pest Management Program

be involved. Symptoms of this disease are seen in the leaves as dark striping, curling, and/or leathery texture. The disease eventually kills the leaf buds and subsequently the tree.

Staff are monitoring BLD in the County. Staff also participate in a USDA Forest Service beech health study that includes both BLD and beech bark disease (BBD) assessment. Data on the incidence of BLD signs and symptoms as well as any signs of BBD are being collected for that study. Outreach efforts are planned to inform decisionmakers and the public about BLD and the impact it will have on the approximate 4.3 million beech trees throughout the County. More information on BLD can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/beechn-leaf-disease>.

Cooperative Agricultural Pest Survey

The cooperative agricultural pest survey (CAPS) is a U.S. Department of Agriculture Animal and Plant Health Inspection Service program. The mission of this program is to utilize a network of cooperators and stakeholders to detect non-native, exotic pests of concern. Using various traps and visual surveys, the Urban Forest Management Division monitors pests of concern to the forest resources of the County in collaboration with the Virginia Department of Agriculture and Consumer Services. The pests of concern that are monitored in the County are generally not known to be present in the Eastern United States; however, their potential impacts to agriculture and natural resources warrants monitoring efforts to find them quickly should they arrive here. Specific pests monitored in Fairfax County are oak ambrosia beetle, sudden oak death, and thousand cankers disease.

Outreach

The FPP conducts and participates in multiple outreach and education efforts. Staff foster an appreciation for trees and the urban forest to inspire residents, County agencies, and the development industry to protect, plant, and manage greenscape resources. Targeted audiences for education and training include Fairfax County Public Schools, County staff, resident scientists, homeowners associations, and natural resource professionals. Through public events such as the Fairfax County Arbor Day Celebration, Environment Expo, and town hall meetings, staff educate the public about the County's urban forest resources and programs. Staff develop hands-on activities and displays that help convey the importance of the stewardship of the County's natural resources. In addition, staff reach out to students in the County through various school programs which encourage them to advocate for protection and support of the County's urban forest. More information about education programs can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/education-programs>.

The FPP continues to improve messaging and communication with County residents by utilizing a variety of media to reach multiple audiences and demographics in the County. Methods include printed materials such as brochures as well as podcasts, videos, social media, webinars, the County website, newspaper articles, and television, radio, and YouTube interviews. Much of the outreach can be found on this webpage:

<https://www.fairfaxcounty.gov/publicworks/trees/news-videos-podcasts>.

Management Plans

The nature of invasive insects and diseases is such that it is difficult to make long-term predictions on monitoring techniques and response plans. USDA has drafted a management plan for ALB; it outlines a role for localities consistent with what staff had envisioned. For example, County staff can play a critical role in public meetings, notification, and mapping. VDACS and the FPP have drafted basic management plans for ALB, EAB, and SLF. The management plans will act in concert with plans in place by USDA and VDACS. The Forest Pest Management Program, which is subject to

Fund 40080: Integrated Pest Management Program

approval by the Board of Supervisors, provides a summary of program activities. The 2023 Forest Pest Annual Report is scheduled to be approved by the Board of Supervisors on March 5, 2024. Last year's report can be viewed as part of the March 7, 2023 Final Board Package and can be found on this webpage:

<https://www.fairfaxcounty.gov/boardofsupervisors/sites/boardofsupervisors/files/assets/meeting-materials/2023/board/march7-board-package-final.pdf>

Disease-Carrying Insects Program

Mosquitoes, ticks, and other vectors are responsible for transmitting pathogens that can result in life-changing illnesses such as West Nile Virus (WNV), Zika, and Lyme disease. The Health Department's Disease-Carrying Insects Program (DCIP) was established in 2003 and works to protect County residents and visitors from vector-borne diseases. The DCIP 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 and their families.

West Nile Virus and Other Mosquito-Transmitted Pathogens of Public Health Concern

WNV, which is transmitted from birds to humans through the bite of infected mosquitoes, continues to be a national public health concern, and is the most reported locally acquired mosquito-borne infection in Fairfax County. In addition to WNV, the Virginia Department of Health's reportable disease list includes other mosquito-borne illnesses: chikungunya, dengue, eastern equine encephalitis, Jamestown canyon, LaCrosse encephalitis, malaria, St. Louis encephalitis, and Zika.

The Health Department's Division of Epidemiology and Population Health investigates reported cases of these illnesses and notifies the DCIP. The DCIP conducts entomological investigations for these cases, as appropriate, providing education and information as well as controlling mosquitoes as necessary to protect public health.

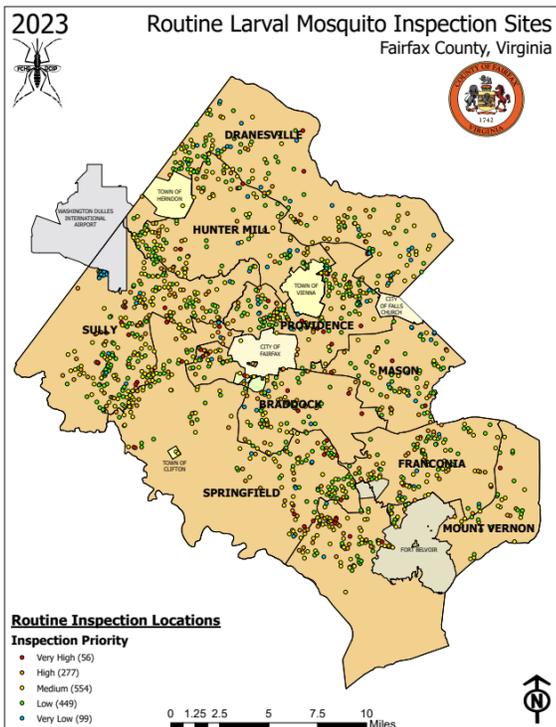


Figure 1. 2023 Routine larval mosquito inspection sites (dry ponds)

Mosquito Inspections, Surveillance, and Control Activities

The Health Department responds to complaints and requests for assistance about standing water and mosquitoes as a service to residents who have mosquito-related concerns. Residents are encouraged to call the Health Department, send an email to fightthebite@fairfaxcounty.gov or submit a mosquito complaint online.

Immature mosquito surveillance efforts (conducted between March and November) help identify aquatic habitats that support the development of mosquitoes. Health Department staff routinely inspect approximately 1,700 publicly maintained "dry ponds" (Figure 1) and approximately 200 Virginia Department of Transportation maintained stormwater structures throughout that timeframe. Targeted treatments of those habitats can be highly effective at controlling mosquitoes before they reach the flying adult stage when they are more difficult to control.

Adult mosquito surveillance is a vital component of Integrated Mosquito Management (IMM) for monitoring mosquito abundance and viral activity. Adult mosquitoes are trapped weekly from May through October at 73 sites (Figure 2) within the Fairfax Health District, which includes the Cities of Fairfax and Falls Church. Trapping efforts

Fund 40080: Integrated Pest Management Program

collect a variety of mosquito species, some of which are important disease vectors:

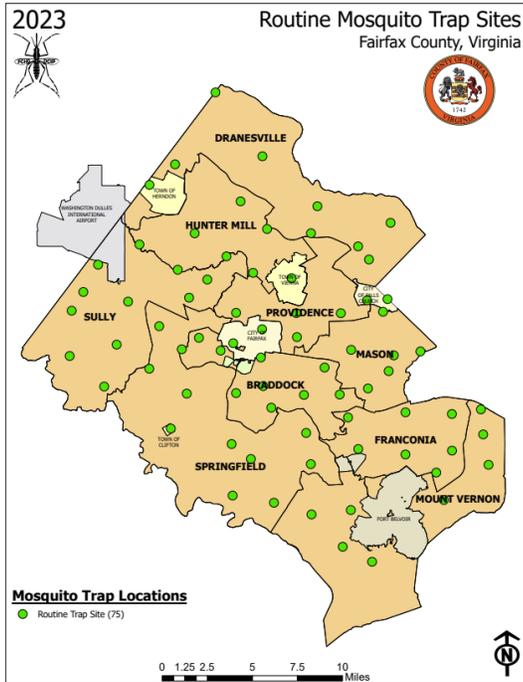


Figure 2. Routine mosquito trap sites

- *Culex pipiens* and *Culex restuans*: common mosquitoes that are the main vectors of WNV.
- *Aedes albopictus*: the most common nuisance mosquito in Fairfax County (also known as the tiger mosquito) that is a potential vector of chikungunya, dengue, yellow fever, and Zika.
- *Aedes aegypti*: an invasive tropical species that is the main vector of chikungunya, dengue, yellow fever, and Zika. This species is present in Washington, DC, but collections are infrequent in Fairfax County.

On its own, or in conjunction with human disease investigations, mosquito surveillance provides information that can trigger control efforts for immature and/or adult mosquitoes. Control efforts and activities may include public education, elimination of larval habitats, larvicide applications, and/or spraying to kill adult mosquitoes.

Action thresholds for targeted adult mosquito control efforts (“spraying”) are flexible, as recommended by organizations such as the American Mosquito Control Association and the National Association of County and City Health Officials (NACCHO). 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, and
- Reported cases of human disease.

Lyme Disease and Other Tick-Borne Diseases

Lyme disease is the most reported vector-borne illness in the United States, with an average of more than 30,000 cases reported annually. It is also the most reported vector-borne disease in Fairfax County each year. The bacterium that causes Lyme disease (*Borrelia burgdorferi*) is transmitted from small mammals to humans through the bite of an infected blacklegged tick (*Ixodes scapularis*). Other tick-borne diseases reported in the County include anaplasmosis, ehrlichiosis, and spotted fever rickettsiosis.

Tick Surveillance and Identification

The DCIP collects and identifies ticks each month from several veterinary clinics and the Fairfax County Animal Shelter. Staff also work with local wildlife officials to attend deer management activities that occur in the County to remove and identify ticks. Since FY 2021, through a collaboration with the Fairfax County Police Department’s Wildlife Management Specialist and Animal Services Division, DCIP has received ticks collected through the County’s deer management archery program. Tick surveillance may also be performed using other methods such as dragging, flagging, sweeping, and trapping. Blacklegged ticks collected by routine or response surveillance are tested for the Lyme disease bacteria at the Health Department laboratory. The data generated by tick surveillance and testing are used to inform the public about the seasonality of local tick species, the diseases they spread, and to reinforce messaging about the importance of preventing tick bites.

Fund 40080: Integrated Pest Management Program

An invasive species, the longhorned tick (*Haemaphysalis longicornis*), has been identified in several states since it was first detected in the United States in 2017. This tick has been detected annually in Fairfax County since 2020. It transmits a variety of pathogens to humans and animals in other parts of the world; however, its medical significance in the western hemisphere is uncertain.

The DCIP offers a free tick identification service where people find out what type of tick bit them, information about tick-borne diseases and tick prevention methods. This service does not test ticks or provide medical advice. More information can be found at:

<https://www.fairfaxcounty.gov/health/fightthebite>.

Outreach and Education

Outreach and education are essential to vector-borne disease prevention. The Health Department is committed to increasing community awareness of personal protection actions that help prevent mosquito and tick-borne diseases as well as steps that can be taken to reduce mosquitoes and ticks. Staff distribute educational materials, offer yard inspections, and advise residents about how to reduce their exposure to mosquitoes and ticks. DCIP staff provide educational presentations for County workers, neighborhood and homeowners associations, schools, and other interested groups, partnering with the Health Department's Division of Community Health Development to promote more equitable information-sharing of vector-borne disease prevention messages. Outreach and education resources can be found on the DCIP webpage:

<https://www.fairfaxcounty.gov/health/fightthebite>.

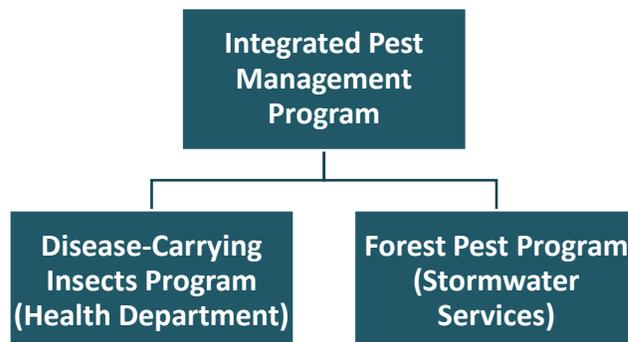
Management Plans

The DCIP Annual Report, which is subject to approval by the Board of Supervisors, provides a summary of program activities. The latest Disease Carrying Insects Program Annual Report is scheduled to be approved by the Board of Supervisors on March 5, 2024. Last year's report can be viewed as part of the March 7, 2023 Final Board Package and can be found at:

<https://www.fairfaxcounty.gov/boardofsupervisors/sites/boardofsupervisors/files/assets/meeting-materials/2023/board/march7-board-package-final.pdf>.

The DCIP maintains relationships with professional and governmental organizations such as the American Mosquito Control Association and United States Centers for Disease Control and Prevention for guidance on mitigation of vector-borne diseases. Staff share information and network with regional counterparts throughout the year for situational awareness and to gather ideas for program improvements.

Organizational Chart



Fund 40080: Integrated Pest Management Program

Budget and Staff Resources

Category	FY 2023 Actual	FY 2024 Adopted	FY 2024 Revised	FY 2025 Advertised
FUNDING				
Expenditures:				
Personnel Services	\$1,790,764	\$2,283,203	\$2,283,203	\$2,368,365
Operating Expenses	749,242	1,255,557	1,372,145	1,255,557
Capital Equipment	0	35,000	35,000	35,000
Total Expenditures	\$2,540,006	\$3,573,760	\$3,690,348	\$3,658,922
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	15 / 15	15 / 15	15 / 15	15 / 15

Summary by Program

Category	FY 2023 Actual	FY 2024 Adopted	FY 2024 Revised	FY 2025 Advertised
Forest Pest Program				
EXPENDITURES				
Total Expenditures	\$1,421,267	\$1,610,741	\$1,666,441	\$1,652,357
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	8 / 8	8 / 8	8 / 8	8 / 8
Disease-Carrying Insects Program				
EXPENDITURES				
Total Expenditures	\$1,118,739	\$1,963,019	\$2,023,907	\$2,006,565
AUTHORIZED POSITIONS/FULL-TIME EQUIVALENT (FTE)				
Regular	7 / 7	7 / 7	7 / 7	7 / 7

FY 2025 Funding Adjustments

The following funding adjustments from the FY 2024 Adopted Budget Plan are necessary to support the FY 2025 program:

Employee Compensation \$90,282

An increase of \$90,282 in Personnel Services includes \$43,163 for a 2.00 percent market rate adjustment (MRA) for all employees and \$32,248 for performance-based and longevity increases for non-uniformed merit employees, both effective July 2024. The remaining increase of \$14,871 is included to support other compensation adjustments and employee retention and recruitment efforts that will reduce pay compression and align the County's pay structures with the market based on benchmark data.

Other Post-Employment Benefits (\$5,120)

A decrease of \$5,120 in Personnel Services reflects required adjustments associated with providing Other Post-Employment Benefits (OPEBs) to retirees, including the Retiree Health Benefits Subsidy. For more information on Other Post-Employment Benefits, please refer to Fund 73030, OPEB Trust, in Volume 2 of the FY 2025 Advertised Budget Plan.

Fund 40080: Integrated Pest Management Program

Changes to FY 2024 Adopted Budget Plan

The following funding adjustments reflect all approved changes in the FY 2024 Revised Budget Plan since passage of the FY 2024 Adopted Budget Plan. Included are all adjustments made as part of the FY 2023 Carryover Review and all other approved changes through December 31, 2023.

Carryover Adjustments **\$116,588**
As part of the FY 2023 Carryover Review, the Board of Supervisors approved funding of \$116,588 for encumbered carryover to both the Forest Pest Program and the Disease Carrying Insects Program.

Position Detail

The FY 2025 Advertised Budget Plan includes the following positions:

INTEGRATED PEST MANAGEMENT PROGRAM - 15 Positions			
Forest Pest Program			
1	Urban Forester IV	1	Urban Forester I
2	Urban Foresters III	1	Administrative Assistant III
3	Urban Foresters II		
Disease-Carrying Insects Program			
1	Epidemiologist III	2	Environmental Health Specialists II
1	Environmental Health Supervisor	1	Environmental Technician II
2	Environmental Health Specialists III		

Performance Measurement Results by Community Outcome Area

Environment and Energy

Forest Pest Program

The FPP recently expanded the list of pests that are monitored and treated. The new performance measures are more inclusive of the work completed by staff. There was no aerial treatment for the spongy moth (formerly called gypsy moth) in the spring of 2022. The number of forest pest surveys and related activities in FY 2023 is 59 percent higher than the previous fiscal year. This increase is largely due to expansion of the BLD and HWA programs. Monitoring and treatment projects were modified to increase efforts for the early detection and rapid response for BLD. Staff conducted countywide monitoring to find areas with BLD and delineated the extent of known infestation areas. Staff increased efforts to inventory the extent of hemlock stands in the Dranesville and Springfield magisterial districts and identified what areas of the County to prioritize treatment. Additionally, staff treated more hemlock trees than in previous years. Defoliation surveys for listed insects conducted in the summer of 2023 indicated that there will be no defoliation in Fairfax County in FY 2024.

Fund 40080: Integrated Pest Management Program

Healthy Communities

Disease-Carrying Insects Program

The FY 2023 program cost-per-capita was \$1.01, \$0.25 higher than in FY 2022. The increase from FY 2022 to FY 2023 was mainly due to a return to pre-pandemic staffing levels and Board of Supervisors approved compensation increases.

Inspection and treatment frequency of stormwater structures are impacted by multiple factors including staffing, environmental conditions and site prioritization based on historical inspections. The increase in inspections from FY 2022 to FY 2023 was influenced by all these factors, but especially the return to pre-pandemic operational capacity as well as adjustments to operations based on lessons learned during the COVID-19 pandemic. Staff anticipate that the number of inspections will moderate in FY 2024 and FY 2025, but inter- and intra-seasonal variability in staffing and environmental conditions will continue to be major drivers in actual inspections and treatments performed.

Community Outcome Area	FY 2021 Actual	FY 2022 Actual	FY 2023 Estimate	FY 2023 Actual	FY 2024 Estimate	FY 2025 Estimate
Environment and Energy						
Promoting Air, Water and Land Quality						
Percent of County tree defoliation resulting from listed Forest Pest infestation	0%	0%	0%	0%	0%	0%
Healthy Communities						
Improving Physical and Behavioral Conditions						
Percent of stormwater structure inspections that resulted in treatments to control immature mosquitoes	10%	14%	12%	8%	12%	10%

A complete list of performance measures can be viewed at <https://www.fairfaxcounty.gov/budget/fy-2025-advertised-performance-measures-pm>

Fund 40080: Integrated Pest Management Program

FUND STATEMENT

Category	FY 2023 Actual	FY 2024 Adopted Budget Plan	FY 2024 Revised Budget Plan	FY 2025 Advertised Budget Plan
Beginning Balance	\$5,587,249	\$4,488,355	\$5,905,878	\$5,213,887
Revenue:				
General Property Taxes	\$2,906,931	\$3,141,666	\$3,141,666	\$3,227,550
Interest on Investments	102,704	7,691	7,691	7,691
Total Revenue	\$3,009,635	\$3,149,357	\$3,149,357	\$3,235,241
Total Available	\$8,596,884	\$7,637,712	\$9,055,235	\$8,449,128
Expenditures:				
Forest Pest Program	\$1,421,267	\$1,610,741	\$1,666,441	\$1,652,357
Disease-Carrying Insects Program	1,118,739	1,963,019	2,023,907	2,006,565
Total Expenditures	\$2,540,006	\$3,573,760	\$3,690,348	\$3,658,922
Transfers Out:¹				
General Fund (10001) - Forest Pest Program	\$67,609	\$67,609	\$67,609	\$71,560
General Fund (10001) - Disease-Carrying Insects Program	83,391	83,391	83,391	88,264
Total Transfers Out	\$151,000	\$151,000	\$151,000	\$159,824
Total Disbursements	\$2,691,006	\$3,724,760	\$3,841,348	\$3,818,746
Ending Balance²	\$5,905,878	\$3,912,952	\$5,213,887	\$4,630,382
Tax Rate Per \$100 of Assessed Value	\$0.001	\$0.001	\$0.001	\$0.001

¹ Funding in the amount of \$159,824 is transferred to the General Fund to partially offset central support services supported by the General Fund which benefit Fund 40080, Integrated Pest Management. These indirect costs include support services such as Human Resources, Purchasing, Budget, and other administrative services.

² Due to the cyclical nature of pest populations, the treatment requirements supported by this fund may fluctuate from year to year. Therefore, Ending Balances may also fluctuate depending on the level of treatment necessary to suppress spongy moth, cankerworm, emerald ash borer, or West Nile Virus - carrying mosquito populations in a given year.