

*Approved by EQAC, July 8, 2015*

**FAIRFAX COUNTY ENVIRONMENTAL QUALITY ADVISORY COUNCIL  
MINUTES**

**DATE:** Wednesday, December 10, 2014  
**TIME:** 7:15 P.M.  
**PLACE:** Hidden Oaks Nature Center

**MEMBERS PRESENT**

Larry Zaragoza (Vice Chair, Mt. Vernon)	Robert McLaren (At-Large)
Matthew Baker (Student Member)	David Smith (Braddock)
Linda Burchfiel (At-Large)	Rich Weisman (Sully)
Ken Lanfear (Hunter Mill)	

**MEMBERS ABSENT**

Stella Koch (Chairman, At-Large)	Alex Robbins (Providence)
Frank Crandall (Dranesville)	Glen White (Mason)
Johna Gagnon (Lee)	Clyde Wilber (Springfield)
George Lamb (At-Large)	

**STAFF**

Kambiz Agazi	Noel Kaplan
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**GUESTS**

Glenda Booth	James McGlone
Larry Cartwright	Eleanor Quigley
Keith Cline	Troy Shaw
Deana Crumbling	Paul Siegel
Richard Eake	John Stokely
Ashley Kennedy	Bob Vickers
Dick Kennedy	Flint Webb
Sallie Kennedy	Katherine Wychulis
Betsy Martin	

The meeting convened at 7:15 P.M.

### **Discussion of spraying to control the fall cankerworm**

#### **Matters discussed:**

- Presentation from Katherine Wychulis, Volunteer Attorney and Director, Friends of Dyke Marsh, representing a 10-member coalition of organizations opposing the county's fall cankerworm spraying program, entitled "Time to End Fall Cankerworm Insecticide Spraying Program." Assistance in the presentation from Ashley Kennedy, Entomologist, University of Delaware.
  - Identification of the 10 coalition organizations that oppose the spraying program.
  - Identification of spraying locations in 2014 as well as the methods used for spraying (spraying from both helicopters and trucks).
  - Attributes and beneficial effects of the fall cankerworm, including that: it is native to the area; it presents no risks to human health or safety; it is a food source for native and migrating birds, bats, frogs, spiders and other animals; and that it restores nutrients to the soil through frass falling to the ground. Ashley Kennedy noted that the fall cankerworm caterpillar is an ideal food source for birds because the caterpillar does not have chemical defenses, and is smooth, without hair or spines.
  - Reasons for the county's spraying program: nuisance and defoliation of trees.
  - The coalition's perspective that these reasons are not valid reasons to spray thousands of acres of vegetation; its view that defoliation occurs during the season in which trees repair their foliage quickly and fully.
  - The coalition's view that nuisance is not a good or sufficient reason for the spraying program, particularly in light of broader adverse impacts of the spraying.
  - Concerns that the chemical that is used, Btk (Foray 48B), is harmful to all exposed moths and butterflies (Lepidoptera) in their caterpillar stage and "must not be applied aerially within 0.25 mile of any habitat of threatened or endangered Lepidoptera."
  - At least 62 springtime species of butterflies that have been documented in Fairfax County, and potentially many more species because of the lack of documentation of Lepidoptera, are at risk of being completely killed in the areas subject to spraying.
  - 39 species of migrating birds are estimated to be harmed by spraying, as the spraying kills their largest source of food.
  - 65 species of native breeding birds can also be affected adversely, particularly those that eat insects like caterpillars and spiders almost exclusively during breeding season.
  - Two native species, the Hooded Warbler and the Carolina Chickadee, were highlighted as being two of many natural enemies of the fall cankerworm as well as two species that are adversely affected by a reduced food source within Btk-treated areas.

- The coalition's recommendations to: end insecticide spraying that targets the fall cankerworm; expand the mission of the county's Forest Pest Program to forest health; and refocus resources on communication and education (e.g., the importance of the fall cankerworm and alternatives to spraying such as installing chickadee boxes to encourage natural population control approaches) and the Tree Action Plan recommendation to encourage diversity of native trees and plants.
- Presentation from Troy Shaw, Chief, Forest Pest Management Branch, Urban Forest Management Division, Department of Public Works and Environmental Services.
  - The ability of high populations of the fall cankerworm to defoliate a range of tree species.
  - The historic and current high populations of the fall cankerworm in the Mount Vernon and Lee Districts, as well as a small portion of Mason District.
  - A study done on Bull Run Mountain that found that 50% of black oak trees died after two years of defoliation from cankerworm.
  - Impacts of defoliation on the health of trees, particularly in urban areas such as Fairfax County where trees are under a range of other stresses—a concern that defoliation of trees in Fairfax County could tip the balance, causing tree mortality.
  - The Urban Forest Management Division's approach of focusing treatment only within areas with caterpillar populations at or above thresholds that could result in defoliation—i.e., areas where monitoring identifies populations of 90 or more female caterpillars per tree (based on U.S. Department of Agriculture Forest Service guidelines).
  - Notification of residents near areas identified for spraying--All residents within 200 feet of identified treatment areas are notified by two separate letters, and residents may opt out of aerial spraying. Post cards are also mailed to people who live near proposed treatment areas. Other publicity efforts include notification meetings, press releases, maps posted in government centers and libraries, notifications to horse owners and collaboration with schools.
  - Through monitoring using tree bands, nearly 2,000 acres were identified within 16 areas (ranging from 15 to 300 acres in size) for spraying in 2014.
  - The program is voluntary. Citizens can opt out by submitting written requests; spraying will not occur within 200 feet of any property that is opted out. Hydraulic ground equipment is used to spray other properties within the 200 foot buffer area.
  - The pesticide that is used (Bt or Btk) is an EPA-approved, naturally occurring soil microbe and is quickly broken down by ultraviolet light, is water soluble and is washed off by rain.
  - The pesticide is harmful to cankerworms, due to their alkaline stomach lining, and does not affect acid-lined stomachs, such as those in humans, birds and reptiles.
  - The program does understand there is an indirect impact on birds (disruption of the food supply), but minimizes this by having relatively small spray areas (15-300 acres) and a required threshold for a large population of cankerworms in specific area to spray that area. Birds that eat treated caterpillars are not harmed.
  - Aerial spraying of pesticides for fall cankerworm has only been done four times since 2000. An integrated pest management approach is taken through which

monitoring of pest populations is pursued to identify target spray areas. Spraying is pursued to prevent defoliation and not to alleviate nuisances, although that is a secondary benefit.

- The pesticides that are used do not affect adult butterflies or moths or their pupae or eggs; the pesticides only affect larvae, and mostly small larvae.
  - The program is reviewed by state agencies for threatened and endangered species.
  - There are no human health effects of the small quantities of pesticides that are applied.
- Questions from EQAC members—unless otherwise noted, responses were from Urban Forest Management staff.
    - The extent of monitoring through tree banding and how this information is used to decide where to spray.
      - 450 monitoring sites in the Mount Vernon and Lee Districts.
      - The default position is that spraying will not be proposed unless the monitoring identifies a need—i.e., areas with concentrations of trees with 90 or more caterpillars.
    - Whether there is any priority given to areas that have previously been defoliated.
      - Yes, but only where caterpillar populations warrant such treatment. Some areas that have been defoliated in the past have caterpillar populations that have crashed.
      - Areas that have been subject to defoliation are targeted for banding/monitoring in the fall.
    - Why fall cankerworm populations have suddenly become a problem when we've had this native species in the area forever.
      - While the species is native, populations can reach outbreak levels, and nobody is sure why this happens. The caterpillars do not disperse well—they tend to stay in the same areas, causing the potential for repeated defoliation events within these areas.
    - Whether trees can recover from defoliation.
      - They can, but they become more susceptible to damage from other stressors.
      - Ashley Kennedy noted that the fall cankerworm had a preferred tree species (the American Chestnut) but that, with the loss of that species, the caterpillar has adapted to different species as food sources.
    - Whether the county sprays for defoliations or actual tree losses.
      - The two go hand in hand. If trees are defoliated, you'll start to see mortality.
    - The extent of the spray areas in Fairfax County.
      - Less than one percent of the county's land area, mainly in the Mount Vernon and Lee Districts.
    - The extent to which spraying would likely impact the viability of any insect.
      - Different species have different levels of susceptibility to Btk. Btk is very effective in controlling the fall cankerworm at its small larval stage. Other species are not as susceptible.

- Whether only one defoliation episode would be of concern or if multiple defoliations would be needed for an adverse impact to trees to be seen.
  - For a healthy forest, multiple defoliations would be needed for there to be an adverse impact. However, in urban areas such as ours where there are already numerous stresses, only one defoliation can be sufficient to create an adverse impact on the health of a tree.
- An e-mail from Douglas Tallemey (University of Delaware) responding supportively to the context of the county's spraying program was noted. Noel Kaplan was asked to circulate this e-mail to all EQAC members.
- Whether there are any estimates of the impacts of the spraying program to bird populations.
  - Response from Katherine Wychulis that she has seen studies identifying stresses to birds in terms of a depressed food source, but she has not seen studies regarding direct population impacts. She noted studies indicating at least a 2-3 year adverse impact to non-target Lepidoptera species.
- Audience comment
  - Concern raised by the Virginia Department of Forestry about the accuracy of the coalition's characterization of the Virginia Department of Forestry's conclusions on the impact of cankerworms in Virginia.
  - Extent of relationship between exclusion areas and tree mortality compared with spray areas (anecdotal only, as exclusion areas are relatively small and are not monitored).
  - Recognition of good motives of the Urban Forest Management Division.
  - Concern about tree decline and possible reduction in food source quality due to defoliation.
  - Widespread use of Bt around the world and its non-persistent character.
  - Definition of urban forestry.
  - Differing perspectives on the extent to which defoliation will result in tree loss.
  - Differing perspectives on the extent to which the spray program has been driven by concern about nuisance rather than urban forest health.
  - Cankerworm mortality rates relating to spraying.
  - Basis for the monitoring threshold indicating a need for spraying.
  - Lack of spraying (and lack of tree mortality) at Huntley Meadows Park and National Park Service land.
  - The extent to which resources should focus on other, man-made urban forest stressors.
  - The nature of outbreaks of high cankerworm concentrations in some areas but not others and uncertainty as to why this happens.
  - Loss of black oaks on Bull Run Mountain and continued cankerworm infestations there despite the absence of this species.
  - Possible linkage between high cankerworm concentrations in urban areas and low native tree diversity in those areas.

- EQAC discussion
  - Request by Supervisor McKay for EQAC's views; interest also by Supervisor Hyland.
  - General support for staff perspective on spraying.
  - Interest in improvements to the related website.
  - Lack of quorum at meeting precludes a vote; need to vote in January.
  - Recognition of need to restore understory; discussion of a need for more deer control efforts.

**Motions made:** None.

**Follow-up actions:**

- Larry Zaragoza agreed to draft a letter for consideration by EQAC in January.

**Environmental Improvement Program funding project proposals**

**Matters discussed:**

- The Environmental Improvement Program project selection process
  - Review of agency proposals by an interagency staff project selection committee.
  - Scoring process.
  - Executive review of committee recommendations.
  - Timeline
- Projects submitted for consideration for funding in FY 2016 and funding recommendations resulting from the review process.
- Does not include projects with other funding sources (e.g., Capital Improvement Program).
- Set-asides for small projects
- The Invasive Plant Removal Program will definitely be recommended for funding; no guarantees about funding recommendations for the other projects
- Cost-benefit considerations in the reviews of proposals.
- Status of the energy dashboard concept and its relationship to the EIP project funding process.
- Considerations relating to an energy dashboard—technology; software; management; expense; educational values of display options.

**Motions made:** None.

**Follow-up actions:** EQAC interest in updates on this issue in the future.

**Confirmation of establishment of a nominating committee for EQAC officers for CY 2015**

**Matters discussed:**

- Consensus supporting Bob McLaren and George Lamb as committee members

**Motions made:** None.

**Follow-up actions:**

- Committee to report back to the full council with its recommendations.

**Identification of an EQAC representative for the Tree Commission**

**Matters discussed:**

- Need to fill EQAC's vacancy.
- No volunteers identified

**Motions made:** None.

**Follow-up actions:**

- Item will continue to be included on EQAC meeting agendas.

**Approval of meeting minutes**

Deferred to the January 2015 meeting.

**Review of meeting agendas**

**Matters Discussed:**

- Public hearing is January 21, 2015; publicity efforts identified
- There is not a standard EQAC meeting on the second Wednesday of January.
- February 11, 2015 will include presentations by the Department of Public Works and Environmental Services on water quality monitoring and outreach/education. Fairfax County Public Schools should be contacted about this item.
- March 11, 2015 will be a joint meeting with EQAC and Environmental Coordinating Committee.
- A briefing from Clyde Wilber on freshwater mussels as they relate to a proposed draft rule for the state's ammonia standard was identified as a future topic.
- A discussion of pollinators was identified as a future topic.

**Motions made:** None.

**Follow-up actions:** Agenda items as identified

**Chairman's items**

None.

**Council member items**

**Matters discussed:**

- 40<sup>th</sup> anniversary of the Safe Drinking Water Act.
- Attendance at the January 21 public hearing.

**Motions made:** None.

**Follow-up actions:** None.

**Staff items**

**Matters discussed:**

- Summary of the November 18 presentation of the 2014 Annual Report on the Environment to the Board of Supervisors.
- The annual Mount Vernon District Town Hall meeting and the invitation to EQAC to staff a table at the meeting.
- Planning Commission Environment Committee meetings.
- More on the energy dashboard concept.
- Recycling issues.
- February 3 meeting of the Board of Supervisors Environmental Committee.

**Motions made:** None.

**Follow-up actions:** None.

The meeting was adjourned at 10:10 P.M