



LEESBURG ENVIRONMENTAL ADVISORY COMMISSION

THURSDAY
February 19, 2019
7:00 P.M.

Town Hall
Second Floor Conference
25 West Market Street

COMMISSIONERS

Maria Bergheim (20)
Scott Billigmeier, Chairman (22)
Jennifer Chu (20)
Bobbi Elliott (22)
Gabriella Kelemen (22)
Christopher LaFon (20)
Paul Sheaffer (20)

If you require any type of reasonable accommodation, as a result of a physical, sensory or mental disability, to attend and/or participate in this meeting, please contact Richard Klusek at 703-771-2758. Three days advance notice is requested.

LEESBURG ENVIRONMENTAL ADVISORY COMMISSION

Mission: To promote and protect the environmental interests of the Town.

MEETING AGENDA

Tuesday February 19, 2019

7:00 P.M. Second Floor Conference Room, Town Hall

1. Call to Order
2. Approval of Agenda
3. Approval of Minutes: January 10, 2019*
4. Chairperson's Statement
5. Petitioners
6. EAC Group Photo
7. Election of Officers
8. Staff items (45 Minutes)
 - a. Email Reminder (Klusek)
 - b. Energy Savings Initiative for Town Government (Klusek)*
 - c. Tolbert Award (Klusek)
 - d. Recycling (Klusek)
 - e. Capital Improvements Program* (Klusek)
 - f. Water Conservation Challenge (Klusek)
9. Old Business (60 Minutes)
 - a. Herbicide Alternatives* (Billigmeier)
 - b. Keep Leesburg Beautiful (LaFon/Billigmeier)
 - c. Annual Report Update (LaFon)
 - d. Flower and Garden Show Planning (Billigmeier)
 - e. Strategic Plan (Billigmeier)
 - f. Environmental Portal Update (Chu)
 - g. Development Review Criteria* (Billigmeier)
 - h. EAC Point of view (Billigmeier)
 - i. Town Plan Markup (Billigmeier)
 - j. Volunteer Service Advisor (Billigmeier)
 - k. Friends of the EAC (Billigmeier)
10. New Business (15 Minutes)
 - a. Summer Internship
11. Adjournment

(*) Material attached

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**Town of Leesburg Environmental Advisory Commission
Meeting Minutes
January 10, 2019**

The Town of Leesburg's Environmental Advisory Commission (EAC) met on January 10, 2019 at 7:00 p.m. in the Town Hall at 25 West Market St., Leesburg, Virginia.

Call to Order: Vice Chair Guerre called the meeting to order at 7:00 p.m.

Roll Call: Present: Commissioners Bergheim, Billigmeier, Guerre, LaFon, Elliott, Kelemen
Staff Representatives: Richard Klusek
Absent: None

Agenda Changes: Mr. Klusek requested the EAC make changes to the agenda to elect a new chairman and to allow discussion of additional staff items.

Approval of Agenda: A motion to adopt an amended agenda was approved (6-0)

Election of Chair: Mr. Klusek noted that the EAC bylaws required new officers to be elected in the event of a vacancy. The role of chair was vacant due to Mr. Greenough not being reappointed. Vice-Chair Guerre nominated Scott Billigmeier to the role of Chair. A motion elect Scott Billigmeier was approved (6-0).

Approval of Minutes: A motion to adopt the meeting minutes of December 6, 2018 was approved (3-0-3, Elliott, Kelemen Abstain).

Chairman's Statement: Chairman Billigmeier thanked the Commission for the electing him to the position. He noted that he hoped to see the commission do more both as a group and individually. He asked that all commissioners step up and set a good example.

Commissioners Comments: Commissioner Guerre requested that petitioner comments be limited to five minutes. After some discussion, the commission agreed to avoid formal time limits and to have the chairman keep meeting discussion focused. Commissioner Kelemen introduced herself to the Commission.

Petitioners: Jennifer Chu attended the meeting and provided comments on the draft environmental portal.

Minu Beijan attended the meeting and asked the Commission work with the Commission on Public Art to get ideas to the public.

Staff Items:

- a. **Environmental Portal:** Mr. Klusek provided an update on the Environmental Portal and noted that some minor additional edits needed to be made. The commission agreed to have Jennifer Chu provide some additional content to the commission for consideration as a volunteer. After

some discussion, the Commission voted to go live with the environmental portal but to avoid any major press releases at the moment (6-0). Additional edits will continue to be made over time.

- b. Energy Savings Initiative for Town Government – Mr. Klusek explained that energy savings discussions were ongoing and that he would report the results of a meeting with Staff in February.
- c. Tolbert Award – Mr. Klusek noted that the Tolbert Award had arrived. The Commission asked that he look into presenting the award at the March 12th Town Council Meeting.
- d. Annual Report – Mr. Klusek noted that the EAC needed to develop an annual report and this had previously been done by Chairman Greenough. Commissioner LaFon agreed to develop the first draft of the report.
- e. Rain Barrel Workshops – Mr. Klusek reminded the commission about Rain Barrel Workshops and asked the commission if they wanted to continue the Practice in Spring 2019. The Commission voted 6-0 to have Mr. Klusek work with the Loudoun Soil & Water Conservation District to offer the workshops and a \$25 discount for Town residents.
- f. Flower and Garden Show – Mr. Klusek reminded the Commission that the Flower and Garden Show would be taking place in the Spring and that planning for the event should begin. Commissioner Guerre will take the lead in planning for the event and put together a checklist for discussion in future meetings.

Old Business:

- a. Keep Leesburg Beautiful – Commissioner LaFon discussed an email he drafted to be shared with Loudoun County Schools in Leesburg. The commission voted 6-0 to have Commissioner LaFon work with Mr. Klusek and the Town's Public Information Officer to send the email to school representatives at his discretion.

Commissioner Elliott provided an update on past discussions regarding trash cleanup and illegal dumping. She noted that the Deputy Chief of Police recommended contacting the streets division for any such issues. Mr. Klusek noted that he would follow up with public works to get additional information.

- b. Water Quality - Commissioner Elliott provided an update regarding water quality concerns. She explained that she felt something needed to be done about Chromium 6 in the Town's water supply. She also noted that she did not agree with information put forward by the Town's director of utilities which used data from 2014. She believed that updated and more accurate reporting of Chromium 6 levels was needed.
- c. Environmental Impact Policy – Commissioner Billigmeier explained criteria developed for evaluating land use applications that were developed based on the Town Plan. After some Commission discussion, Mr. Klusek noted some concerns with respect to what the commission was trying to accomplish and if it represented the best use of EAC member's time given other efforts. The commission agreed to table discussion for the time being. Mr. Klusek suggested the EAC identify goals and develop more focused initiatives to address those goals rather than developing broad policy.

- d. Herbicide Alternatives – Commissioner Guerre presented an initiative she drafted to have the Town Council pursue alternative herbicides. The Commission voted 5-0-1 (Kelemen Abstained) to have Mr. Klusek work with appropriate staff to have the item put on a future Town Council Agenda.

New Business:

- a. Meeting extension – The Commission voted 6-0 to allow new business to be taken up after 9:00 pm.
- b. Ideas for Future Efforts – Commissioner Billigmeier asked Mr. Klusek to research the following items:
 - Is it possible to set up a Friends of the EAC group similar to friends of Balch Library of Friends of Leesburg Public Arts?
 - Can a resolution be put together to than former Commissioner Greenough for his years of service?
 - Can the EAC work with volunteer science advisors as non-voting members?The commission voted 6-0 to have Mr. Klusek research these items.

Adjournment: There being no further business, the meeting was adjourned at 9:13 pm.

Town of Leesburg

Energy Management and Conservation Policy

Purpose

This policy is intended to support the reduction of energy consumption in the Town of Leesburg office buildings and confirm the Town's commitment to environmental stewardship. Guidelines are provided in this policy regarding practices aimed at lowering energy consumption, as well as procurement and effective use of energy-consuming equipment. Through implementation of this policy, the Town should realize a positive environmental impact and cost savings on energy bills.

Applicability

This policy applies to Town of Leesburg local government buildings and employees.

Authority

This policy is provided under the authority of the Town of Leesburg Town Manager's Office.

Scope

A. Heating, Ventilation, and Air Conditioning

1. Building heating and cooling will be adjusted and monitored to ensure comfort of occupants while minimizing energy demands
2. Heating and cooling temperatures will be set back during unoccupied building hours to reduce energy demands to the extent possible without compromising building comfort.
3. Building occupants and staff are requested to keep windows and outside doors closed while the air conditioning and heating are on.
4. Personal space heaters shall be limited wherever possible except where necessary to ensure comfort in poorly heated parts of buildings.
5. Poorly heated and cooled locations in Town buildings will be evaluated to identify any cost effective improvements or modifications that can maximize efficiency.
6. Timers will be installed on hot water heaters where practical and cost effective to ensure they are turned off when not in use. Heat traps and insulation may be installed on hot water heaters, as feasible, in order to conserve energy.
7. When and where replacement equipment is needed, equipment will be purchased that meets the current ENERGY STAR ® rating requirements, as allowable.

B. Lighting

1. Lights are to be turned off in unused areas, with the exception of emergency lighting.
 - a. Employees will be encouraged to turn off all lights off when leaving the office.
 - b. Custodial staff will turn off lights in the building after cleaning is completed each afternoon/evening.
2. Lighting fixtures will be converted to LED bulbs where possible when replacements are needed.

3. Automatic light sensors will be installed where logistically feasible, and considered for use in all construction and renovation projects.

C. Electronic Equipment

1. Minimize energy consumption of computers, printers, and copiers by ensuring that that they are set to go into energy savings modes when and where feasible.
2. Ensure that computer monitors turn off or go into power saving modes when not in use.
3. During work hours, all capable PCs should be programmed for an optimized balance of performance and energy saving.

D. Procurement

1. To the extent legally permissible, products carrying the ENERGY STAR® label (e.g. appliances, electronic equipment, HVAC equipment, roofing, etc.) shall be given procurement preference.
2. If ENERGY STAR® labeled products are not available, the purchase of energy efficient equipment should be pursued.

E. Building Envelope

1. Window, door, roofing and other insulation materials will be periodically inspected for efficiency (e.g. air-tightness, etc.) by the Maintenance Department (or certified contractor) in order to evaluate any need for replacement or updating.
2. Periodically evaluate new building technologies and improvements such as insulation or window coatings that can be used to cost-effectively lower energy consumption.

F. Periodic Internal Audits

1. To ensure this policy is successfully implemented, internal audits will be conducted periodically by the Town's Management Team, or designee(s).
2. Audits will cover all sections of this procedure, and all Town government facilities.
3. Audit results will be documented and retained by the Town Manager's Office.
4. Audit findings will be addressed by the Town's Management Team.

G. Annual Report

At the end of each fiscal year, Town Staff will prepare an annual report to quantify energy usage, describe energy efficiency improvements that were made, describe new energy savings initiatives, and list accomplishments in energy savings. The report will address the policies above and describe efforts made to limit energy usage as it relates to each policy.

Town of Leesburg
Town Council Proposed Initiative
December 6, 2018

Subject: Pilot Program – Alternative to Using Herbicides

Commissioner Contact: Bettina Guerre, Environmental Advisory Commission Vice Chairman

Council Action: The Town of Leesburg’s Department of Public Works and Capital Projects conducted a Trial Program using an alternative to AquaNeat Herbicide in a selected area to see if it is viable cost effective, and effective in controlling weeds. The site was utilized for a determined period to see the effectiveness and the safety factors of using an alternative to the herbicide AquaNeat.

Pilot Program Results: Department of Public Works used a retail product called Bondi Burnout (a citric and clove oil mixture) which was not recommended due to its odor and effectiveness. and another product called Avenger. application for controlling significant vegetation in the Town Branch area of Leesburg. The Avenger product proved effective although several (6 Monthly applications starting in May through October were used) as compared to using AquaNeat requiring (1) application in June and potentially more if area gets out of control. The results show that using an alternative to AquaNeat, the amount of product used per application was 100-150 gallons as mixed with a concentrate and cost \$1,000.00 per application) and needs at least 1 application per year versus Avenger, using the same 100 to 150 gallons mixed from concentrate. May need as much as 37 quarts of product per application. The total cost of application using Avenger was \$1,800.00 (and there would be no certainly that TrueGreen would apply the product) would require 6 applications from May through October at a total yearly cost of \$10,800.00. (see attached chart on Town Branch Herbicide Spraying Options)

Commission Recommendation:

The EAC recognizes the significant difference in the yearly cost in using Avenger or another alternative to AquaNeat. However, in order to promote and encourage a sustainable community development, in the long run, using a product not containing the highly controversial ingredient glyphosate herbicide would be an environmental, human health and wildlife preservation issue and worth the cost.

TOWN BRANCH HERBICIDE SPRAYING OPTIONS

Description of product	Amount of product used per application	Total Cost per application using TruGreen	Number of applications per year	Total Cost per year
AquaNeat	100 to 150 gallons as mixed with concentrate	\$1,000.00	(1) in June and potentially more if area gets out of control	\$1,000.00
Avenger	Same 100 to 150 gallons mixed from concentrate. 25 quarts mixed per 100 gallons water. May need as much as 37 quarts of product per application.	\$1,800.00, not certain if TruGreen will apply the product.	(6) Monthly starting in May through October.	\$10,800.00, potentially higher if town staff is requested to apply without contractor assistance

Note that the Town rides (uses) TruGreen's contract with the Loudoun County school board.

Criteria/Policy:

Poisoning vegetation to control weeds in the Town Branch area is not a sensible option. Not safe for humans, wildlife, waterfowl, aquatic life and habitat. The cost of using an organic, safe weed killer would most likely be more expensive, but the long-term advantages in human health and the environment would be well worth it.

Suggested Alternatives:

Some suggestion to using herbicides are the following:

1. An organic grass and weed killer (BurnOut by Bonide – available at Lowes of Leesburg)
2. Using goats that are brought in for a determined amount of time and contained in a small area to eat the weeds. There are rental programs at Goatfinder.com
3. Avenger Organic Weed Killer

Supported Background:

Studies have shown that people exposed to glyphosate herbicides have shown that this exposure is linked with increased risks of cancer, non-Hodgkin lymphoma, miscarriages and attention deficit disorder. For each of the hazards identified in these studies, there are also laboratory studies that results that are consistent with the studies of exposed.

There is laboratory evidence that glyphosate herbicides can reduce the production of sex hormones. Glyphosate containing herbicides can cause genetic damage in fish and frogs, disrupt the immune system of fish and disrupt the development of frogs. Glyphosate use can impact birds when the plants killed by the treatment are plants that birds use for food or shelter.

Glyphosate use has been known to create “super weeds” which require additional more toxic herbicide use,

can contaminate ground water in vast subterranean stretches in areas directly and indirectly exposed to the application of this agrichemical – a finding that runs contrary to the manufacturer’s claims that glyphosate is readily “biodegradable” and even “makes the soil cleaner”, which it has been proven not to do.

In a 2011 study (Environmental Toxicology and Chemistry) found glyphosate in 60-100 percent of all U.S. Air and rain samples tested, indicating that glyphosate pollution and exposure is now omnipresent in the regions within which it was applied.

Glyphosate, on which Monsanto held the patent until 2000, is classed as “dangerous for the environment and “toxic for aquatic organisms” by the European Union. Recent experimental research found that exceedingly small concentration of glyphosate (450-fold lower than used in agriculture applications) induce DNA damage in human cells.

Draft EAC Criteria for Reviewing Proposed Development (Dec. 2018)

REFERENCE: Leesburg Town Plan – Natural Resources chapter (July 2018 update)

Guiding Legislation and Agreements:

- National Pollution Discharge Elimination System
- Clean Air and Clean Water acts
- Chesapeake Bay agreement
- FEMA guidance on natural hazards
- FAA requirements applicable near airport

Finding a Better Way Forward: ... “[Town] development occurred with little sensitivity to the natural environment. Forests were cut and stream valleys were graded without an apparent effort to minimize the environmental impacts of this development.”

1) Contributes network of ecologically valuable landsⁱ

- Preserve, protect, and restore stream corridors to include adhering to proscribed buffer distances (100-250 feet).
- Preserves high value habitat areas.

2) Protects water qualityⁱⁱ

- Insufficiently protects water corridors; unsustainable impact on the catchment and sub-watershed.
- Construction on 100-year flood plain.

3) Minimize Impact of new developmentⁱⁱⁱ

- Excessive tree loss.
- Complicates or thwarts Town goal of connecting W&OD Trail to C&O Canal via White’s Ferry.

4) Conserve and Increases forest canopy^{iv}

- Unnecessarily contributes to the loss of tree canopy (with emphasis on older and native trees and watershed buffer).
- Inconsistent with Town's Urban Forestry Management Plan.

5) Protect that Town's water resources and prevent downstream pollution^v

- Doesn't incorporate natural approaches for stormwater and erosion control.
- Insufficiently mitigates likely fertilizer, pesticide and herbicide use.

6) Achieve Energy Savings and Air Quality Benefits^{vi}

- Does not include appropriate Green Building techniques (e.g., LEED).
- Does not provide reasonable alternatives to lessen vehicle usage.

7) Minimize unnecessary outdoor light pollution^{vii}

- Exterior lighting is not fully shielded and/or unnecessarily high.
- Unreasonably contributes to light pollution in the area.

8) Minimize unhealthful noise pollution^{viii}

- Either creates or residents will be subject to excessive noise (45-75 dBA Ldn).

9) Design new structures to protect against natural hazards^{ix}

10) Assess new development compliance with Town Natural Resource Objectives^x

11) Establish and maintain an environmental management system^{xi}

12) Manage Town natural resources equally and sustainably^{xii}

General Best Practices and Relevant Factors:

Any waivers are appropriate and commensurate with available mitigation measures. (*General*)

Impervious material use is appropriately minimized.^{xiii}

Stormwater run-off (to include pesticides) and erosion controls are not unnecessarily exacerbated.^{xiv}

Doesn't disproportionately impact ecological value of parcel or adjacent natural areas.

Green Building Techniques (e.g, LEED) are used when reasonably appropriate.^{xv}

Incorporates Green Infrastructure techniques such as rain gardens, permeable soils or pavements, and green roofs.^{xvi}

Promotes or facilitates walking or bicycling by incorporating trails and connecting to nearby pedestrian infrastructure.

Wildlife migration areas are avoided.

Preserve habitat for the flora and fauna indigenous to this area

Provides passive recreation opportunities

ⁱ Adapted from Town Plan Natural Resources Objective #1: Identify, protect, and restore an integrated open space network of ecologically valuable land and water resources within the Town and its Joint Land Management Area (JLMA).

ⁱⁱ Adapted from Town Plan Natural Resources Objective #2: Protect and restore the ecological integrity of streams in Leesburg and its JLMA by utilizing a series of watershed management tools to offset the impacts of development. These tools include: watershed planning, land conservation, aquatic buffers, low impact site design, erosion control, stormwater treatment practices, control of non-stormwater discharges, and watershed stewardship

ⁱⁱⁱ Adapted from Town Plan Natural Resources Objective #3: Minimize the impact of new development on natural systems by adopting low impact development standards and conservation subdivision design techniques.

^{iv} Adapted from Town Plan Natural Resources Objective #4: Preserve, protect, and restore the tree canopy within the developed parts of Leesburg and its JLMA

^v Adapted from Town Plan Natural Resources Objective #5: Protect the Town's water resources and downstream receiving waters including Goose Creek, the Potomac River, and the Chesapeake Bay from the impacts of non-point source pollution.

^{vi} Adapted from Town Plan Natural Resources Objective #6: Achieve energy savings and air quality benefits for the Town and the region by encouraging energy-saving site design, building, and land use planning practices, and increasing the tree canopy.

^{vii} Adapted from Town Plan Natural Resources Objective #7: Minimize outdoor lighting consistent with public safety requirements to reduce glare and impacts on the night sky.

^{viii} Adapted from Town Plan Natural Resources Objective #8: Protect people from unhealthful levels of highway and aircraft noise.

^{ix} Adapted from Town Plan Natural Resources Objective #9: Design new construction to protect people and property from natural hazards such as flooding, unstable conditions related to soils and geology, and vectors that may transmit disease.

^x Adapted from Town Plan Natural Resources Objective #10: Ensure that new development conforms to objectives 1 through 9 of the natural resources element by **conducting environmental assessments of development proposals to identify land that should be preserved as natural open space and cost-effective mitigation measures for environmental impacts.**

^{xi} Adapted from Town Plan Natural Resources Objective #11: Establish and maintain an environmental monitoring system to measure progress toward achieving the goals of the natural resources element.

^{xii} Adapted from Town Plan Natural Resources Objective #12: Manage natural resources equally with other town infrastructure and assets.

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- ^{xiii} Reston Association Guidelines (adapted from)
- ^{xiv} Reston Association Guidelines (adapted from)
- ^{xv} Reston Association Guidelines (adapted from)
- ^{xvi} www.epa.gov/smartgrowth/smart-growth-and-water