

# **Board of Supervisors Environmental Committee**

February 13, 2018

Government Center Conference Room 11

## **Board of Supervisors Members Present:**

Board Chair Sharon Bulova  
Committee Chair Penelope A. Gross, Mason District  
Supervisor John Foust, Dranesville District  
Supervisor Cathy Hudgins, Hunter Mill District  
Supervisor Jeff McKay, Lee District  
Supervisor Dan Storck, Mount Vernon District  
Supervisor Linda Smyth, Providence District  
Supervisor Cathy Smith, Sully District

## **Others Present:**

Dave Molchany, CEX  
Rick Haley, EQAC  
Ken Lanfear, EQAC  
Marcia Pape, Braddock District  
Goldie Harrison, Hunter Mill District  
Susan Hafeli, DCCS  
James Patteson, Director, Department of Public Works and Environmental Services (DPWES)  
Peter Shogren, FMD  
Norbert Pink, Sierra Club  
Ann Bennett, Sierra Club  
Meena Bhatia, DPWES  
Laura Grape, NVSWCD  
Marguerite Guarino, DVS  
Joseph Gorney, DPZ  
Patti Innocenti, DPMM  
Davood Majidian, FCPA  
Noel Kaplan, DPZ  
Paul Shirey, FCPA  
Elizabeth Lonoff, League of Women Voters  
Pamela Gratton, DPWES  
Helene Shore, 350Fairfax  
Ann More, 350Fairfax  
David Kepley, FACS  
Susan Wertz, Sierra Club  
Jean Wright, FACS

**February 13, 2018 Meeting Agenda:**

<https://www.fairfaxcounty.gov/boardofsupervisors/sites/boardofsupervisors/files/assets/meeting-materials/2018/feb13-environmental-agenda.pdf>

**February 13, 2018 Meeting Materials:**

<https://www.fairfaxcounty.gov/boardofsupervisors/board-environmental-committee-meeting-feb-13-2018>

The following is a summary of the highlights of the discussion from the **February 13, 2018** meeting.

Today's meeting was called to order at 9:34 a.m.

**Opening Remarks**

After a brief welcome and introduction from Supervisor Gross, Committee Chair, the minutes from the **October 3, 2017** meeting were accepted into the record. Supervisor Gross also announced that all future committee meetings will be 1.5 hours.

As part of the opening remarks, James Patteson, Director of the Department of Public Works and Environmental Services, provided a brief update on a Wetlands Board request to look at county permitting of county projects that impact tidal wetlands. Currently the county is exempted from having to submit its project plans to the Wetlands Board for review. The Huntington Levee project is an example of a county project that will have an impact to tidal wetlands and the Wetlands Board was requesting a legislative change to remove the exemption of county projects from being reviewed.

The Board of Supervisors asked staff to follow-up with the Wetlands Board to discuss the issues and come up with a solution that would not require a legislative fix. Staff met with the Wetlands Board in January and presented the existing review and permitting process for county projects. As a result of the meeting, county staff committed to working with the Wetlands Board on all county projects the impact tidal wetlands moving forward. The county agreed to treat the Wetlands Board as a stakeholder and coordinate with them closely on all county projects that impact tidal wetlands.

James noted that there aren't many county projects that impact tidal wetlands. The two that come to mind are the Huntington Levee, which is mentioned above and a proposed future New Alexandria project. The Wetlands Board expressed satisfaction with the stakeholder process that was proposed by county staff.

**Board Discussion:**

The Board's Environmental Committee did not have any questions or comments.

## Item II

### County Government Operational Energy Strategy

The first topic on the agenda was a presentation regarding the county's draft Operational Energy Strategy (Strategy).

Kambiz Agazi, Environmental Coordinator, provided the committee with an overview of the Strategy. Kambiz noted that the Strategy will be circulated to EQAC and other environmental groups for review and comment and he wanted the Board to be aware of it before it gets distributed.

Kambiz reminded the committee that when it adopted its updated Environmental Vision (June 20, 2017), the Board of Supervisors approved objectives in the areas of energy efficiency, conservation and renewable energy intended to reduce both the county's operational use of energy from fossil fuel sources and the greenhouse gas (GHG) emissions associated with that energy use. The Board then directed staff to develop a strategy to support these new objectives and to brief the Board at a future Board of Supervisors Environmental Committee meeting on the proposed Strategy.

As part of his presentation, Kambiz noted that the draft Strategy is intended to further the Board's objectives by providing goals, targets, and actions in each of the following ten focus areas:

- Energy Use and Efficiency
- Water Use and Efficiency
- Green Building and Sustainability
- Goods and Services
- Awareness and Engagement
- Utility Cost Management
- Waste Management
- Transportation
- Innovative Energy Solutions
- Reporting and Collaboration

No focus area is the responsibility of one department or agency alone and that interagency collaboration and coordination will be needed to successfully implement this ambitious energy strategy. In some cases, leadership and management may need to expressly empower staff to act in furtherance of the goals, targets and actions in this strategy. Periodic reviews and updates will help ensure it remains vital despite expected advances in technology and legislative and regulatory change.

Kambiz summarized by stating that achieving the strategy's goals and targets requires financial commitments from the Board, departments and agencies. Initial capital outlays, adequate staffing and resources, and dedicated funding are essential both to undertake the energy and cost-saving actions in this strategy and to realize their benefits. Investing in efficiency

improvements and other actions to reduce energy consumption will generate returns for decades, well beyond initial payback periods.

**Board Discussion:**

**Foust:** If you are going to present the Strategy to EQAC then you also need to allow other environmental advocacy groups to review and provide comment.

**Agazi:** I have had three environmental groups personally ask if they can provide comment on this document and I have opened up the opportunity for all three to meet with me to discuss the Strategy.

**Foust:** I'm glad to hear that you're accepting comments from other groups as well because if you don't listen, then we will have to – so let's get their comments and we have several months for you to deal with that. I am not going to get into all the details and concerns about what you drafted but I will wait until June and appreciate you giving us heads up as to where it's going rather than presenting us with something we have to deal with.

**Foust:** The advocacy groups keep reminding me of all our commitments and that we as a board made so many commitments I almost can't keep track of them. Don't you think you should start from commitments and work backwards and determine what you are proposing will get us there? I would like to see that. I don't think your goal of 2% in a year will accomplish what we as a board have promised regionally and at a county-wide basis. That's just a thought to approach these implementation strategies.

**Gross:** John – are you asking for a tracking chart?

**Foust:** Just to keep track what we promised and what we achieved. I don't know promise is the right word but we set some goals that I think are appropriate. I have heard from a lot of the advocates for this so I have several comments but you need to talk to them because they are on top of this. The 97% not covered by the 3% of the Strategy.

**Gross:** Thank you John. If board remembers have specific concerns here, please give them to Kambiz for the June meeting. Our June meeting will be the final convention and it will be a final adoption in the summer – so please get your comments to Kambiz and let's not wait till June.

**Bulova:** To John's point, we can do what we do within our Fairfax County government and we will make sure that we are energy efficient and look at energy innovations and etc., but we are only 3% so reaching and working out with private sector is encouraging. How we are working with private sector about clean energy and being efficient throughout Fairfax County is so critical. If we are doing everything in the county but the private sector is not participating then we are not going to get there. So some private sectors have already embraced energy efficiency. It is older housing/building of the county where we have issues – our older community housing needs support.

**McKay:** Two comments – the comment about woven into the budget process – I think what we really need are example projects. Same can be said for county when we are rebuilding new facilities and what I don't know in terms of the budget is what opportunities do we have? I think we need a much better idea what pays for itself and why are we not doing that more? If we look at the overall budget and make a capital investment and the new technology or environmental strategy, we are going to want to know is that economically feasible over what period of time we get that investment back.

The schools have way more footage than we have and I would really like to know what you all are doing with capital improvement projects in particular because when residents think of the county, they think of the schools and the county and I think we have an obligation to make sure we are working with our partners in the schools system to make sure that we are equally succeeding and make sure the sustainability practices are put in place in county and school projects knowing at the end of the day, it's our taxpayers and residents paying for both. There is expectation in the community that we are trying to align ourselves from a goal standpoint.

**Gross:** I know that Pat has been working on a renewable energy strategy and policy for the school board. I am not sure if they have actually taken it up yet but I met with her last month and there is an interest there.

**McKay:** Public walks in a school or police station and I think they have the same expectation in terms of energy efficiency and use of tax dollars. I know that Schools is governed by an independent board, but we talk about being more collaborative and aligning goals together and it seems that this is a great place to make sure that happens. Some of our newer schools are definitely show pieces for new energy opportunities.

**Storck:** I just wanted to say that my understanding is that both the schools and the county have increased their building footprints fairly significantly in the last eight or so years and while the county has reduced its energy consumption on a per capita basis – our overall consumption has gone up or stayed the same. The schools with dramatically more space appear to have lowered their energy consumption, which is what I think Jeff noted, and we need to look at what they are doing. I am going to reinforce John's point about the board commitments making sure we are on a path to achieve them and identify those in a spreadsheet would be good. It will be difficult to dig through the documents and it's difficult to find them but I want to honor and ensure we are moving with the previous commitments. I think we have more opportunities than we really have gone after which is a return on investment in particular some of the energy savings and some of the energy efficiency projects and I think we have many more opportunities. I believe we are moving in the right direction, but possibly not quick enough.

Final point that this is a good overview and strategy and I will have specific comments to make but I keep thinking about the concept of forced concentration and making sure to focus on those things that provide the greatest return on investment and the list of different things we should be doing ought to be part of the strategy. I have no objections or concerns about that but we need to identify truly where our greatest opportunities are and focus resources on the highest return.

Energy efficiency to savings and or what we believe at least as a board as what we want to make the most impact on. We know greenhouses gases and the effect of that is truly troubling to all of us and we have to do more. We know our more immediate focus in the next five years is on those types of energy efficiency savings and may be not on some of the other elements in the Strategy. But I am looking for the strategy to not only provide the overall strategy but a more concentrated strategy. Where should we be in the next number of years? Efficiency should be the highest priority because we know the return on investment will happen sooner and ultimately the result will be greater in terms of the societal positive impact.

**Hudgins:** Thank you for the presentation and I think most importantly focusing on how we bring this information into the budget process to ensure that we do exactly what has been said here. Also, we have EQAC as the Citizens Advisory piece and of course we know there are other voices out there, but I really think the opportunity to say what we are focusing on and what we are responding to should really come from EQAC meaning that all the other voices should be going through it. I think as you requested we should bring information back, and I think the information needs to be shared with the board members because I think it's very hard sometimes to respond to the question of what progress have we made and what things have not been done

**Patteson:** I just want to touch base since Capital facilities came up a number of times in the discussion. DPWES is doing some exciting projects and we will come back with some updates of the green building policy but I just want to make you aware since it came up that the policy says, "LEED silver is a minimum" but staff strives to achieve all the points we can. We currently have 13 LEED gold certified buildings and 12 silver. That's a pretty good portfolio. We are continuing to look at renewable energy opportunities as the cost of solar is coming down and we are actually studying most of the buildings we have under design right now to determine the feasibility of a rooftop solar installation. Staff is also evaluating the feasibility of piloting one or two net zero buildings – Pine Ridge Facility and the Lorton Community Center.

**Gross:** It might not be a bad idea to share this strategy with the chamber and perhaps not just the Virginia Chamber of Commerce. That's a way to get to the private sector piece.

### **Item III**

#### **Update on County Energy Outreach Initiatives**

The second topic on the agenda was a presentation regarding the county's energy education and outreach initiatives.

Jessica Lavender provided the committee with an overview of the county's energy website that includes the energy consumption pages and energy dashboard, the Energy Action Fairfax (EAF) program and the Green Business Partners Program.

Jessica noted that the Fairfax Employees for Environmental Excellence (FEEE), which is an employee advocacy group designed to engage county employees on energy efficiency and

conservation and recycling best practices, now has a new public facing page on the county's energy website. Jessica presented the energy consumption pages which consist of electricity, natural gas, and CO<sub>2</sub> annual emissions back to 2006. The energy consumption pages are updated annually. She noted the various graphs ranging from the county overall to specific facility types. Jessica also provided a report on the new interactive energy dashboard that went live December 2017 that shows monthly electricity, natural gas, sewer and water by building using a variety of interactive graphs and charts. She also noted that the energy dashboard was being demonstrated to employees on a webinar.

Jessica also shared the EAF webpage which showed energy saving tips, thermal camera loan program, renewables, home energy assessments, events & success stories in our community and resources/videos. Jessica mentioned that Solarize Fairfax County was our campaign last spring and was a successful partnership with the Northern Virginia Regional Commission and the Local Energy Alliance Program and we will have the same campaign this spring also. One of our on-going initiatives is a thermal camera loan program. This is where you can borrow a thermal camera from any public library. With these cameras, you can identify hot and cold spots in your home - yellow is hot and purple is cold. Tips on how to use the camera and energy efficiency project ideas are available online. Since the program launched last April, the cameras have circulated over 280 times. There are currently 33 thermal cameras in circulation.

Jessica noted a new initiative called our LED lightbulb exchange. She noted that it's a partnership with libraries and there will be six events held at each of the county's regional libraries throughout the county and in addition to giving out information about lighting in general, we will give out one free LED bulb to anyone and up to four more for each incandescent or CFL that people exchange. She noted that LEDs are still a confusing technology for people to buy and a recent report said that incandescents have about 50% of the socket bulb market but there is no reason for everyone not to have LEDs. The prices have come down a lot and they are only half as much as incandescent - \$2-2.50 verses \$1.20. The pay back is less than a year in most cases. Also incandescents you might have to replace every year but the LED should last you 15 years or longer. We are hoping this helps residents move in the direction of LEDs for all the lights in their home.

The next initiative is about Fairfax Employees for Environmental Excellence (FEEE). FEEE is an employee sponsored initiative that raises awareness and engages employee interest around environmental sustainability topics. We do presentations, events, and we have a webpage. We do a green lounge event every spring in conjunction with the Administrative Resource Team (ART) Conference. We also did a display in November for America Recycles Day. The group has been around for a while but we reorganized to be officially under Energy Action Fairfax with a formal charter and that should help the group to grow.

The last initiative is our commercial program. This is mainly a recognition program although we do have some resources on the website. We offer a directory full of Partners and so far we have 24. We have a new focus for small businesses now. They have their own separate directory and we have four small business partners now. We were getting feedback to focus on home-based or small leased space so hopefully we will increase participation. We also have a bunch of different links to resources and also offer to help people get started.

**Board Discussion:**

**Smyth:** So when you are giving away the LED light bulbs, everybody sort of looked at them and said oh yes, but there are a few catches when you read the instructions about where to use them and I don't know if that's going to be a part of the education piece that goes with these things. I remember looking for one and you cannot use it in an enclosed fixture. I don't know if things have changed but sometimes there's instruction and also the business about the color and that makes a difference for people too.

**Lavender:** A big part of the information we give out will be about color selection. I'll look into the instructions for enclosed fixtures.

**McKay:** Quick comment related to that if there was a simple chart that showed how to convert. Every bulb in my house is an LED. We had to study them as they're all measured differently so if you have a typical 60 watt what does that mean if you have to get all LEDs. To me that's the biggest hurdle – they are measured entirely different so a simple chart that can be printed out we will go a long way.

**Gross:** And the color spectrum is important. There is a difference between bright day light and soft light.

**John:** Thank you – in terms of community energy initiatives, I understand that staff is working on a commercial PACE (property assessed clean energy) program and that staff was bringing it back to the Board. I just want to confirm that.

**Agazi:** The answer is yes. I have taken it upon myself to work with tax administration finance and the county's attorney's office and other staff. We have held several meetings on commercial PACE and we will be coming back to Board of Supervisors Environmental Committee for a briefing. My hope is that we come back in June to give the Board a briefing on commercial pace opportunities. It is still early on in all of our discussions but that is the hope.

**Gross:** We have come a long way from when there were lots of problems with CPACE. Arlington County has an ordinance and Loudoun is working on an ordinance. We have been talking about bringing something back to the committee. At the lunch and learn in November, it was quite a remarkable turnout. Enthusiasm for CPACE has changed a lot over the last several years – years ago CPACE was presented at COG and fraught with problems. It didn't really go anywhere but things are moving forward so hopefully, we will have something in the next few months.

**Agazi:** I have the materials from Loudoun and Arlington. I have Montgomery County's, the District of Columbia and even Houston, Texas, so I have a lot of good material. We have some advisors that we deal with here in the county. We have enough information to further the discussion and to see how to make that work in Fairfax.



**Foust:** That's why I wonder if we need a board matter?

**Gross:** I don't believe we do. The work is on-going and I did a board matter last fall to get the lunch and learn piece going. Staff has continued to meet so that's the catalyst for getting the rest of this going and I don't think we need another board matter.

**Bulova:** I wanted to say that I am glad that the Solarize Fairfax County campaign was a success last year and that we will have another campaign this spring. Working together with the Northern Virginia Regional Commission and some of our sister jurisdictions we are also looking at street lights and trying to get more LEDs even though we don't own the street lights. We are required to work with Dominion Energy to offer more options for the county to be able to have the ability to install LED lighting. I wanted to mention and not sure if that will become part of our report but it's part of the general assembly and working with providers to try to provide those sorts of options so I just wanted to mention that and make sure it's on our radar screen so to speak.

**Storck:** I appreciate the information about the energy data website and I guess my question is best practices and competition are things that drive all of us to do things we did not think were possible but once someone else does it we see that we can do it too. Is that being done? We have county buildings and energy use of those buildings and I realize each buildings' energy use can vary some but we have an opportunity to create consciousness and competition. We can have some sort of comparison. I am happy to start with Mount Vernon District office and recognize maybe I don't have some of the energy efficiencies but either way I don't think we do enough to create that consciousness that drives much of human behavior that's benchmarking against people that found a way to do something better, so I would like to see that wrap into these websites.

**Lavender:** We talked to the schools about their building challenges. The difficulty – there is only so much one can do compared to FMD staff. The measurement and verification rule of thumb is the savings have to be greater than 10% to be able to see it on the bill. But that doesn't mean that we shouldn't do something.

**Storck:** I recognize this. We can increase the focus on getting more done and the county maybe in turn invest resources to have a high rate of return. Maybe I am going to be more vocal to get the resources and why can't we reduce energy costs and do a better plan for all of us. I think we need to take a stronger look at that and I think it's important we involve all of us in that process and I welcome that part of what we do and part of the energy strategy. That's the key part of it.

**Gross:** Thank you Jessica. I will be doing a Board Matter on the Solarize Fairfax County campaign and the LED bulb exchange in April.

## Item IV

### 2018 Forest Pest Program and Itree Analysis Results

The third and final topic on the agenda was a presentation regarding the county's 2018 forest pest program and Itree analysis results.

Troy Shaw provided the committee with an annual overview of the county's forest pest program. The program currently consists of Gypsy Moth, Fall Cankerworm, Sudden Oak Death, 1000 Cankers Disease, Hemlock Woolly Adelgid, Emerald Ash Borer and Spotted Lanternfly.

Troy mentioned that staff is required by county code to make a presentation to Board members who will review our program and vote on it at the March 3 meeting. Troy indicated that the 2018 forest pest program did not include any treatment for aerial spraying for Gypsy Moth or Cankerworm. We have proposed a very modest tree injection (not spraying) program for Hemlock Woolly Adelgid and Emerald Ash Borer, but we don't know how much this will be because we have to let the trees come out in the spring and the insect populations to manifest themselves before we determine the amount of treatment but it's going to be very small and that's trunk injections and not spraying from the air or from the ground. I will not go into details except for the spotted Lanternfly, which is a type of leaf hopper that's native to Asia. First found in Pennsylvania in 2013 in the suburbs of Philadelphia and has expanded from there. This pest is primarily an agriculture pest of commodities like grapes and fruit trees but there is evidence from Asia and Pennsylvania they are finding feeding damage on forest trees.

Troy mentioned that on January 10<sup>th</sup>, this year, this insect was found in Winchester, VA at a landscaping stone yard. After some research, they found out that it's a quarter mile away from the original infestation so they are saying it's established in Virginia. It's not found in Fairfax County yet. We propose in our board item coming up that we initiate a very modest monitoring program in putting barrier bands on some trees. This may not become a huge forest pest so we are recommending any type of control. We will monitor the science and see where this goes and find out if it is something that warrants further action in the future.

Troy reminded the committee that last year at this meeting, he brought forward a proposal to start an Itree analysis. It's a forest service program, where we measure the structure and the function and the composition of the trees throughout the county. I am happy to say that we completed that survey last summer with the exception of a few Stormwater restoration plots we plan to do this summer. We have all the data and we are busy running the model and producing reports. I was hoping to have a more concise report for you here today but we didn't have that available yet. As soon as we do, we will post it on our website and distribute it. One nice feature is that we can do the reports on geographic areas for instance by watershed but also in political districts, so we are hoping to be able to tailor report for each district supervisor. The amount of information that comes from this is huge and it isn't simply forest pests that we are interested in but things like energy and Stormwater. We plan to use it in urban forestry for those that are a risk from pests and other agencies are finding information that we

hope we are going to find the information useful also. I have included facts and figures from the report.

Troy concluded by saying that the last thing he was going to talk about is the Itree study for soil microbes. It's been long understood that the microbes in the soil and by that it's fungi and bacteria and viruses are strong indicators of forest health. Unfortunately, the cost of finding those things in the soil has been very, very high. You have to use DNA analysis to find those. The cost of the analysis has come down. We feel they are at the point where we can economically do them or pay for them and have the information available to us as another means of determining the health of our particular forest. We propose to do these in all of the sites that we did the Itree study in and I have included a cost of this program as \$150,000. That would cover two years of analysis - \$75,000 per year. Fortunately we have the resources available in the fund that we operate under to support that so we are not asking for more resources but just so that you are aware this is somewhat of an unusual expense that we haven't brought to you before. Other agencies will be able to use this information just like Itree. Troy referred to the power point slides of big Rocky Run Tributary and the projects are rebounding and they are growing. Our Stormwater folks are planning to use this information to measure the efficacy of some restoration projects.

#### **Board Discussion:**

**Gross:** We have come a long way since the gypsy moth scare in the early 90s.

**Bulova:** I was just going to say there was a time when the gypsy moth threat was the biggest problem to the trees in Fairfax County and we were going to lose our trees. So we have been able to address that and issues like that so I would like to say congratulations and good job.

**Shaw:** I started with the county 30 years ago when gypsy moth was bad and I am proud of that program. There are lot of oak trees alive because of the resources of the county.

**Gross:** The scary thing is the list of pests keeps getting longer we're finding more pests that we've never heard of before. The gypsy moth was sort of the beginning and now we have that in control. It is amazing the kind of stuff we are having to deal with but having the Itree technology is also very helpful. The more technology we can use to identify what we have in the landscape the better it is.

**Bulova:** So the spotted lanternfly likes grapes?

**Shaw:** It feeds on it. This is an insect that has the life stages are a little different than the caterpillar moth stage. It feeds throughout its life-cycle. It is a piercing and sucking insect so it sucks the liquids from tree or the grapevine and that blemishes the fruit or it will kill them outright. In four situations – they are not clear what that effect will be. Most people I heard are linking it to the period it can do damage and that kind of thing so we are not terribly worried and we are paying close attention and my instinct says it's not the huge forest pest like gypsy moth was.

**Gross:** There was a brief report at the Virginia Association of Counties meeting last week and it did elicit sort of gasps from the counties that have a lot of wineries. Loudoun wasn't there but in Albemarle County they were very concerned about what this might mean for their economy. If there is no more business for this committee to entertain, our next Environmental Meeting is Tuesday, June 12<sup>th</sup> at 11:00 am. Thank you to everyone who presented and we are adjourned.

**Meeting was adjourned at 10:54 a.m.**

**The next scheduled Environmental Committee meeting is Tuesday, June 12 @ 11 a.m.**