

BOARD OF SUPERVISORS ENVIRONMENTAL COMMITTEE

April 2, 2019

11:00 A.M.

Government Center Conference Room 11

Board of Supervisors Members Present:

Board Chair Sharon Bulova

Committee Chair Penelope A. Gross, Mason District

Supervisor John Cook, Braddock District

Supervisor John Foust, Dranesville District

Supervisor Pat Herrity, Springfield District

Supervisor Cathy Hudgins, Hunter Mill District

Supervisor Jeff McKay, Lee District

Supervisor Kathy Smith, Sully District

Supervisor Linda Smyth, Providence District

Supervisor Dan Storck, Mount Vernon District

Others Present:

Noel Kaplan, DPZ

Bob Kitchen, VCCA, CLL

Tiya Raju, DPWES-BCBD

Joe Gorney, DPZ

Renee Grebe, Audubon Naturalist Society

Chris McGough DPMM

Goldie Harrison, HMD

Heather Ambrose, DPWES, SWPD

Peter Shogren, FMD, Energy Division

Ken Lanfear, EQAC

Earle Mitchell, Sierra Club

Meena Bhatia, DPWES

Eric Goplerud, FACS

April 2, 2019 Meeting Agenda:

<https://www.fairfaxcounty.gov/boardofsupervisors/sites/boardofsupervisors/files/assets/meeting-materials/2019/april02-environmental-agenda.pdf>

April 2, 2019 Meeting Materials:

<https://www.fairfaxcounty.gov/boardofsupervisors/board-supervisors-environmental-committee-meeting-april-2-2019>

The following is a summary of the highlights of the discussion from the April 2, 2019 meeting.

Today's meeting was called to order at 11:08 am

Opening Remarks & Item I

After a brief introduction from Supervisor Gross, Committee Chair, the Environmental Committee accepted the minutes of February 12, 2019. With no further changes, the meeting minutes were accepted into the record.

Item II

Community-Wide Energy and Climate Action Plan (CECAP)

The first topic on the agenda was a presentation from Kambiz Agazi, Environmental and Energy Coordinator, Office of the County Executive, who presented on a Community-Wide Energy and Climate Action Plan (CECAP).

Kambiz began by thanking Susan Hafeli, Jessica Lavender and Kate Daley who all contributed to the presentation. The presentation was the first in what will be a two-part series. Kambiz provided background on two requests for a CECAP. The first request was presented by the Environmental Quality Advisory Council (EQAC) in its 2018 Annual Report on the Environment (Climate and Energy Recommendation #1), shared with the Board in November 2018. Board members received a handout with the staff response to the Annual Report on the Environment, where more detail was provided on Climate and Energy Recommendation #1. The second request was the Fairfax Green Initiatives Board Matter from February 5, 2019 (Item 1a).

Kambiz briefly described what a CECAP is, conceptually. Staff research on community energy and climate action plans developed by other jurisdictions concluded that every CECAP contains a purpose and common plan elements.

However, there is no universal definition of a CECAP, and a wide variation of processes were used across jurisdictions. Without a clear definition, the County and community have an opportunity to develop a CECAP process specific to Fairfax.

Staff relied on both experience and research to form a baseline of what it would take to develop a CECAP in Fairfax County. Staff's comparative research found that the level of community engagement varied across jurisdictions that had developed community energy and climate action plans. As a result, there was a wide variety of time and resource needs. Consulting fees ranged from \$150,000 to \$1.4 million, depending on the scope of work and the level of community engagement. Staff compiled lessons learned from other jurisdictions. These included: Involve the community early and often, choose the consultant wisely, and choose more than one consultant as needed.

Kambiz presented a draft timeline for Phases I and II, Plan Initiation and CECAP Planning. He explained that the timeline for these phases are successive and dependent on factors such as recruitment, Board approval and procurement. Based on lessons learned, it is important to involve the community early on, and to get everyone on board with the purpose of the plan and the planning process. In the CECAP Plan Initiation, this is really a team effort. It is not too dissimilar from the Board of Supervisors' Environmental Vision, only there would be a lot more community involvement in the development of the CECAP process. In terms of CECAP actors and participants, staff is looking at a planning team consisting of a staff Steering Committee, staff technical teams and a stakeholder community group. The CECAP planning team would develop the process and scope of work, which would then be presented at a later Board of Supervisors Environmental Committee for endorsement. Following endorsement of the scope of work, it would be logical to then finalize an RFP for consulting services.

Kambiz then presented on the third stage in the CECAP timeline: implementation. Implementation will be tied to existing community needs and the budget process.

Equity will be engrained in the CECAP planning process and in CECAP products and results. The plan will promote equity across the three lenses of sustainability – social, economic and environmental. Essentially, everyone in the Fairfax County community has a right to participate in the planning process, everyone has a role to play, and everyone will have equal access to information and to benefits. The planning process should aim to overcome the challenge vulnerable populations

face, which is that they often have less ability to respond to or recover from climate impacts. Social equity, cultural sensitivity and community health will need to be considered and incorporated into the planning process. An example of a project that addresses all three lenses of sustainability could be a low-income housing energy efficiency and weatherization program. The County has over 4,000 low income housing units. Benefits from upgrades to these housing units, such as reduced utility bills from energy efficiency and weatherization projects or renewable energy installations, would be passed on to tenants.

Kambiz outlined resource requirements to establish energy and climate action planning, which includes CECAP staffing needs for Phase I, Plan Initiation, and contractual service needs for Phase II, Planning. The contractual estimate range Kambiz shared was based on research on what other jurisdictions have done. The true cost will be dependent on the scope of services needed in Fairfax County. The CECAP will involve coordination and collaboration across county departments, similar to the effort of the Environmental Vision document. However, there will be a lot more community involvement in developing the process. In contrast, the Environmental Vision document was targeted. There were three county-wide meetings, surveys, and a public comment period. For the CECAP process, staff is envisioning a process built with the community, not a process that is given to the community.

The results from the recent Strategic Plan survey showed a desire for increased collaboration and engagement between community members and Fairfax County Government. The community also identified sustainability and equity as planning priorities. The CECAP will facilitate collaboration between the community and the County, and will address sustainability and equity principles throughout. For instance: The CECAP will make it easier for the community to track and report on energy and climate goals; it will provide a strategic framework for energy and climate action; it will involve the community; and it will provide economic opportunities, including the potential to draw in businesses attracted by communities with strong energy and climate plans and programs. On this last point, Kambiz is already hearing this as a priority from the Tyson Partnership, especially the businesses on the Sustainability Council. A lot of the Fortune 500 Companies that are associated with that Partnership have a green plan, and they are looking to the County to see what the County is doing as well.

Board Discussion:

Gross: Thank you, Kambiz. Attached to the presentation is the EQAC recommendation from 2018 to develop a CECAP. The original Vision for the County's twenty-year Environmental Excellence Vision was a grassroots effort that started in 2003 and the Board adopted it in 2004. A lot of advocates worked on that plan that Gerry Connolly brought forth when he was Chairman. Additional community work went into the update. This is going to be broader than either of those two. I am a little concerned that the timeframe for plan initiation is awfully long: from summer of 2019 to the fall of 2020. The Board endorsement of the process wouldn't happen until 2020. I am wondering if you can consider streamlining that and cutting off quite a few months? I would offer that as a request to give us a new timeframe for plan initiation. I think this needs to be updated very quickly.

McKay: Thank you, Penny. And thank you for your last comment. Mine was going to be similar. I think Kambiz worked on a timeline based on the budget and I preliminarily talked to Joe Mondoro about this: I don't see a reason why, in terms of mobilizing the internal resources and recruiting staff and interns, we necessarily have to wait for that. I think there are ways to cut that time period out. I don't think there is any doubt that this Board will approve the necessary resources to make this happen. It is that important.

Joe Mondoro, Chief Financial Officer: With that direction, and with the Board's approval of the budget on May 7, we can start the recruitment process at that point. It will take a little bit of time, but the positions can be on board by August, as opposed to September or October. We'll start that process because we know those positions are critical to moving forward. We will tighten up the timeframe.

McKay: I think that's important. The sense of urgency is there. I think this Board's endorsement is clear on that. So, I appreciate whatever flexibility can be done on the administrative stuff to get you guys going a lot quicker. Clearly the public input process is variable on a lot of things, and I'm not interested in constraining that in any way. But, I think on the internal things, we should be working to try to expedite those.

Gross: To add to that, we already have a number of community groups that are actively anticipating this. And then, why not go out to all those folks who responded to the Strategic Plan survey and who came to the various community

meetings? That's another 15,000 people. We've already got a good handle on folks who are ready to participate, and we can go out and get more, but let's not stovepipe those. Bring them into additional discussions for other things that we're doing.

Foust: I just want to make sure that I understand: Are you adding two positions to the 2020 budget?

Mondoro: Yes, two more positions would be necessary for energy and climate planning.

Foust: And we can start recruiting them and they could be hired on July 1? So, you can start recruiting them before that?

Mondoro: Yes, we'll start writing the position descriptions now.

Foust: As far as consultants are concerned, have you thought that through?

Mondoro: That is a one-time cost. We would not recommend that it be included as part of the 2020 conversation, but we would recommend that be an item that we put into carryover. That's approved in September, so that would not interfere at all with the timeframe.

Foust: I think what we need from Kambiz is another schedule based on a dramatic acceleration based on what we have here. I do want to say, Kambiz, how much I appreciate – I think we all appreciate- the speed with which you are pulling this all together. And it's not just this study. We've got a lot of things going on in the climate change front. I want to congratulate you and your staff for getting us to the next level. I think we are at the next level. I think there's six more levels we have to achieve, but you've done a good job, and I appreciate that. We don't have to wait for plan approval to start doing some of this stuff. I know we're going to have an award-winning plan when we're done, but in the interim, we can start identifying things that we can go out to the community with and start making progress toward our goals without waiting until we get plan approval.

Mondoro: We'll make it happen.

Gross: Keep that in mind, John, because this afternoon we are going to have our joint Environmental Committee meeting with the School Board. I think that's an

area where we can have some additional discussion about what can be done before we get to the more structured plan. There is a lot of low hanging fruit.

Hudgins: I just want to say, Kambiz, that you are helping us move forward and there is a community out there with a lot of energy. We can move forward in those places where it is feasible to do so. But I think it is important that we also acknowledge that staff's planning is going to be critical to us in order to be able to say that we have a good outcome in the larger part of the program. I agree with the fact that we're not starting after you've given us a sign-off on a plan; we're starting with whatever is available and can be done. I feel we can get started. We don't want to dampen the spirit that is out there; there's so much energy out there that we can harness.

Gross: One of the items on slide 7 says, "Navigate the path with practical feet." There's a lot of aspirational goals. We need to make it achievable and operational.

Storck: Most of my questions and concerns have been addressed. I am very pleased, particularly with Penny. You brought this forward quickly and it is moving along expeditiously. I thank everybody involved to getting us where we are today. I know we have a long way to go, but this definitely kicks it off this year. I would love to see us have this process and really start executing this process at the first of the year. Meaning that we have our committee together, and the group is working. I know it takes some time to set that up. But this gives us a chance to get that done, and I think that has to be our objective.

Gross: We are not reinventing the wheel here. We are building a new wheel, but not reinventing it. It's using all those resources that we've had in disparate places and bringing it together.

Cook: A comment on the schedule: Plan approval in March is a bad time because you are waiting a year to fund something that you have just approved, whereas if plan approval is December 2020, then it can go into the County Executive's budget that comes out in a couple of months. If you do that and work backwards, you can accomplish what several people said about a schedule and a timeframe that makes sense. I think you can cut three months out of the schedule and compress it. Schedule-wise, it ought to be done at the end of the fall.

Bryan Hill, County Executive: Supervisor Cook, I agree with you. This plan is predicated on the budget cycle. I know it says March 2020, but that is when we

submit, and that's when you hear from us. We're going to be working with the budget schedule. If you notice, it says September. We started that with our Strategic Planning process as well. We will have it aligned and synced up. Those dates were there specifically to have a placeholder, so you know when it's coming.

Cook: I'm just suggesting that you can do scheduling by working backwards from a hard date. I've never been in favor of having initiatives folded into the budget because then you don't get a standalone vote and discussion on something. It is much better, I think, to have something approved in advance and then you are told to put it in the budget and then it goes. Otherwise, you lose half of the benefit, which is the discussion, by folding it into the budget.

Herrity: You talk about folding into the budget. I would caution: We are already \$75 million in the hole for next year, and that's before we add the reported penny for affordable housing, which I think is \$25 million. So that's \$100 million that we're looking at next year. I think fiscal needs should be a part of the discussion. We approve a lot of stuff going into the budget outside of the budget cycle, where we don't have the opportunity to weigh what we're going to do. We need to keep that in mind as we move forward.

Smyth: Kambiz, your remarks about the Tyson's Partnership are interesting. We have a lot of corporations coming up with their own green plans and part of this discussion must be with the private sector. Yes, the Tysons Partnership is already set up to do that kind of thing, but what about other small businesses? They need to be a part of this as well. Another thing that was going through my mind was: Where are we in terms of our development expectations? We talk about Leadership in Energy and Environmental Design (LEED) and LEED Silver. LEED standards are changing. We need to know about the new standards. We ought to be saying: what should we be expecting in new development? I don't know at this stage what is the optimal standard that we should be looking for, but we need to start talking about that.

Gross: That may be something that we need to work with Bill Hicks and some of the other folks on.

McKay: In terms of the consultant study, in order to solicit public input on that, does that need to be put on an official consideration list? If so, we could do that on Tuesday.

Mondoro: It would be a carryover item. Based on the direction that the Board is giving as part of this discussion and what you are going to vote on as part of the 2020 budget for the inclusion of the positions, staff will come back and incorporate a recommendation for the consultant funding as part of carryover. Certainly, it will be informed by conversations we're having with the community, but I don't think that the Board needs to put in a consideration item now.

McKay: The reason I wanted to make that clear is because there are people who will want to testify and provide input on that.

Mondoro: It will be in the carryover package from the County Executive to you.

Gross: Kambiz, Joe and I – the three of us need to have a conversation about a potential Board Matter coming out of this.

Cook: A quick point on that. I think it ought to be in the budget guidance. You are talking about a two-year project. I recommend a paragraph in the budget guidance because then it is in writing.

Gross: Good Idea.

Storck: The Metropolitan Washington Council of Governments (MWCOG) has approved two groups already who have made it through their process. Maybe we can tie into and benefit from their work as well. We really have an opportunity to make this the optimum public-private partnership. The County has a central leadership role in this, but the other part is we have many corporations and organizations who equally want to be leaders in this area, and in many cases, are leaders in this area. Bringing them together is an essential part of that. In Arlington, they had a collective group of leaders – civic leaders, powerful leaders-who could help to get things done. That, connected with our ability, the quality of our staff and the Board's focus on this, I think we can do equally high-level work, so I'm looking forward to that.

Gross: It's not just the chambers. Its individual leaders.

Storck: We have a lot of Fortune 500 companies who know that this is essential to their long-term success. They are going to be very focused on that and look for an opportunity to partner with Fairfax County.

Foust: Just in terms of mechanics again, you have the consultant down the road. Clearly there is lot of support for these two positions, but the way we normally do it is with a consideration item so that the public is on notice with what we are planning to do with the advertised budget. Otherwise, we will wait until, I think, markup before you would ever see these two positions. I think we agree on putting it out there so that people can come to our April 9th, 10th, and 11th meetings and testify in favor, hopefully, or at least be aware of this.

Mondoro: Certainly, we can help draft a consideration item.

Gross: We have a number of people in the audience who will be testifying at the public hearings anyway, I'm sure.

Bulova: Thank you, Kambiz for pulling this together so quickly. This afternoon, we will have the opportunity to sit down with the School Board and talk about what is the best way for us to be able to collaborate and work together. More than half of our budget goes to the school system and they have more buildings throughout Fairfax County to be able to put into play than we do in the general county. It's important that there's the kind of collaboration that's going to help us to be successful.

We talked about the private sector and engaging the corporate and business community. Shortly after I was elected Chairman, I pulled together a Private Sector Energy Task Force, mainly to help me understand what I didn't know regarding energy efficiency, sustainability and climate change, which was coming on to the front burner as a crisis and something that we needed to engage in. The Private Sector Energy Task Force did its work for about 18 months and came up with some very good recommendations. It consisted of Dominion, Washington Gas, Inova Health Systems, Schools, the Chamber and others. It was chaired by Leo Schefer, with the Airports. It was excellent. Unfortunately, it was at the same time as the recession, and no one was able to fund some of the recommendations or create a forum, which is something that we had wanted to do-a forum that could be hosted or could be a part of the chamber. We should revisit some of those recommendations and some of that work, and we should also make sure that we are reaching out to some of those individuals or institutions that were part of that earlier effort. I think it is important, as we are engaging major stakeholders in the community and in the private sector. Let's make sure that we are reaching out to folks who have already expressed an interest and have already been involved to some degree. The business community is there already. I haven't been to a single

ribbon cutting where the building hasn't been LEED Silver or LEED Gold, and people are so proud of it. So, the private sector is there. We need to make sure we are harnessing their enthusiasm and their work as well.

Gross: Thank you Chairman Bulova. As a member of your Private Sector Energy Task Force, I recall we learned a great deal. I remember one of the recommendations was for the green energy triangle in the Mount Vernon district area. We also learned a great deal about building efficiencies and how new styles of construction were really going to make a huge difference. I believe that report is still available online.

Kambiz: I will check if the report is still online.

Gross: I think we can still use some information from that report that we can build on.

Bulova: There were also some reality checks about what we couldn't do and why. Some of those obstacles have been attempted and have failed. There should at least be an awareness of where obstacles lie and things that we can't do.

Gross: If there are no other comments, we're going to move this one forward as we discussed. We will be looking at the budget guidance and possible Board Matter for the next meeting. Thank you Kambiz!

Item III

Wastewater Capacity and Regional Agreements

The second topic on the agenda was a presentation from Shahram Mohsenin, Director, Wastewater Planning and Monitoring Division, Department of Public Works and Environmental Services, who provided an update on Wastewater Capacity and Regional Agreements.

Shahram first gave an overview of the eight treatment plants that serve Fairfax County. He shared a map that showed where the treatment plants are located throughout the region, as well as where the flow goes from different parts of the County to these treatment plants. He pointed out the Potomac Interceptor sewer line that runs from Dulles Airport in Loudoun County all the way down to the Blue Plains Treatment Plant in Washington, DC. That sewer line serves the airport,

Loudoun County, Fairfax County and parts of Montgomery County. There is a lot of flow that is collected by that sewer line that flows down to DC for treatment. Another location Shahram pointed out was the Difficult Run Pumping Station. That Pumping Station was designed to divert flow out of the Blue Plains service area through a series of forced main and gravity lines all the way down to the Noman Cole Plant. Along the way, the County has two pumping stations identified as Braddock Road Pump Station and Keene Mill Pump Station, where the flow to Noman Cole is intercepted and pumped to the Alexandria Renew Plant to the East. This gives the County some flexibility in terms of its operation and management of future flows. Shahram stated that the Board will see the benefit of that later in the presentation, as he speaks to regional projections.

Shahram then presented on the capacity of the eight wastewater treatment plants serving Fairfax County. Overall, the County has a total of 157 million gallons of capacity per day for wastewater treatment. The County is averaging about 105.5 million gallons per day of flow. The capacity left for growth in the County is about 51.5 million gallons per day. Conservatively, if there is an assumed 100 million gallons per day per capita of flow, that equates to over 500,000 people that could be served with the remaining capacity in the system.

The 2045 flow projection for these eight plants is 150 million gallons per day. The projection was calculated through coordination with the Metropolitan Washington Council of Governments and the County's Comprehensive Plan. For the Noman Cole Plant, the County anticipates it will have 7 million gallons per day of capacity left by 2045. In Alexandria, there will be 9 million gallons per day of capacity left. The Blue Plains Plant will have a deficit of 14 million gallons per day. The Difficult Run Pumping Station, which Shahram discussed in an earlier slide, will allow the County to divert flow out of the Blue Plains watershed as capacity is reached. The additional flow can then be sent to Noman Cole, Alexandria Renew or a combination of both. In the watershed overseen by the Upper Occoquan Service Authority (UOSA), the County anticipates about 4.5 million gallons per day remaining capacity by 2045, however that capacity should be saved for unknown wet weather flows. UOSA discharges into the Occoquan Reservoir, which is a drinking water source for many of the jurisdictions in the area. In terms of overall capacity in 2045, there is still some wiggle room. Staff are monitoring flows, so that they can understand the growth pattern, stay ahead of capacity needs, and come to the Board if any expansion is needed.

Gross: Seven million gallons a day is not all that much. That's why it takes a long time to build additional capacity. We must keep a close eye on that.

Foust: Do we have plans for expanding the capacity of any of these plants? Can we increase capacity, or do we have to buy new plants?

Mohsenin: We can expand capacity; however, we have to be conscious of the loading limitations. We have nitrogen, phosphorus and total suspended solid loads as part of the Chesapeake Bay agreement. The treatment processes that we will end up using will be a lot more advanced than what we have today in order to remove the additional load from the wastewater.

Foust: The 2045 projection assumes no increase in capacity of the existing facilities, correct?

Mohsenin: That's correct. This is existing capacity that we currently own.

Smyth: A number of years ago when we were planning Tysons, Jimmy Jenkins [*previous Director of Wastewater Planning & Monitoring Division*] came with this briefing about the issues with Tysons and where the wastewater would go. At the time, he was talking about the need for another line to get the wastewater someplace else, to another pumping station. Are we still looking at that possibility?

Mohsenin: Yes.

Smyth: Where would that go?

Mohsenin: We have looked at our projections. If you recall from the earlier map, I showed that line going from Difficult Run Pump Station to Noman Cole. There are segments of that line that have to be upsized when the flows go up. They are included in the Capital Improvement Program in the outer years. When the time comes, we will have to look at the options and see how to accommodate that, whether it's a parallel line to the existing line, some sort of storage, or another alternative. Those options are still there in terms of conveyance. In terms of treatment, that table [*slide 4 of the presentation*] summarizes what our treatment capacity is.

Smyth: Does that table include projections for Tysons?

Mohsenin: Yes.

Smyth: That's what I thought. It was the conveyance issue that was first and foremost in Jimmy Jenkin's mind at the time?

Mohsenin: Yes. Those issues are still on the horizon. Again, we are monitoring flows, to make sure we don't go in there and unnecessarily increase the size of the conveyance system.

Shahram then shared a summary of the other jurisdictions that Fairfax County serves as part of its treatment capacity. These jurisdictions have purchased capacity in the County system. One of these jurisdictions is the City of Manassas, which bought treatment capacity from UOSA. In December, the Board received a nip about the County being approached by the City of Manassas to purchase some capacity in UOSA, in anticipation of Micron expanding by \$3 billion. Manassas requested half a million gallons per day capacity, with an option to purchase an additional one million gallons per day in the future. Looking at the 2045 projections, staff felt comfortable with selling half a million gallons per day but said no to the additional million gallons per day for future use. With the help of financial consultants, staff determined the County's investment in half a million gallons per day is equivalent to \$13.1 million. The County offered two payment options to the City of Manassas: either the City could pay the \$13.1 million upfront and the County would pay off the remaining debt service for that planned capacity, or the City could pay the County \$8.2 million today and pick up the remaining debt service for the half of a million gallons, starting in the year 2020 through 2043. The City opted to go with the \$8.2 million option. Staff are working on a sales agreement and will be bringing that to the Board for approval.

Because the City of Manassas requires more capacity and everyone else is starting to look at projections out to 2045, UOSA directed their consultant to look at a master plan for short-term and long-term capacity needs of the four member jurisdictions. Staff is working with UOSA on that.

Smith: Is one of the issues with the Micron expansion related to what it will take to clean the water coming out of there?

Mohsenin: There are two issues: One is just the sheer hydraulic capacity (the volume coming out) and the second issue is the quality of water coming out. There is a requirement on the City of Manassas to pretreat the wastewater before it is sent

into the UOSA system so that the water will be acceptable for UOSA's treatment process. Recently, the City of Manassas approached UOSA with the potential to have additional treatment processes built at UOSA, instead of Manassas removing certain contaminants on-site. UOSA is working on an agreement with them, so that the City would pay all the capital costs and all the operations and management costs.

McKay: Quick question on the Manassas deal: you gave them two options. Are they of equal value to the County?

Mohsenin: Yes – we did a net present value calculation and it is the same.

Shahram then presented on another jurisdiction that would like to purchase capacity in the Fairfax County system. The County has been approached by the City of Falls Church for an additional half a million gallons per day to one million gallons per day of capacity. The City of Falls Church's wastewater flows to two treatment plants. Part of it goes to Arlington and part of it goes to Alexandria as part of Fairfax County's capacity in Alexandria. One of the options staff looked at is the sale of capacity in Alexandria to Falls Church. The other is an exchange of capacity: Falls Church does not anticipate utilizing their capacity in the Arlington Treatment Plant; the County anticipates potential need for more capacity in Arlington because of the growth in Bailey's Crossroads. Falls Church would give Fairfax County their Arlington capacity, and the County would give Falls Church their Alexandria Renew capacity. Staff will have to work out the financial details to see if they are of equal value.

The Town of Herndon has also approached the County for an additional 2 million gallons per day of capacity for their Metro station. The Town of Herndon is located in the Blue Plains service area where the County has some limitations in terms of capacity. Staff is working with them and their consultants on various options, looking at a combination of sending some wastewater to Blue Plains, some to Noman Cole and some to Alexandria. Herndon has also started a conversation with Loudoun Water to purchase capacity in Loudoun County's treatment plant. The problem is not just treatment capacity. There are conveyance issues as well, and it's going to be a very expensive project for Herndon.

Shahram presented on some of the challenges involved with the County's conveyance system. Traditionally, the way the conveyance system has been designed is for growth to happen horizontally (with subdivisions, for example).

The wastewater flow generated from horizontal growth flows into different pipes, not just one pipe. With high density growth, there is now vertical development. That means all the flow from that development is now concentrated in one point, as opposed to being distributed to different pipes. Staff anticipate that pipes that serve areas with vertical development do not have enough capacity. Staff identified those pipes in the system and programmed them into the Capital Improvement Program.

Another challenge the County faces is with decreased water use per capita. With all the water saving devices in homes, the County is seeing growth in the system, but volume of water use is not increasing as much. However, the strength of waste, because of the low dilution factor, is slightly inching up. As the County discusses future plant expansions, it won't necessarily be a hydraulic (volume) expansion but rather a treatment process expansion in order to be able to handle the stronger waste. The sewer rates are designed for volume of water used by customers, not strength of waste. In order to accommodate that, the County may see higher rate increases per volume to deal with the strength of waste issue, in the future.

Gross: Has the wastewater industry been looking at those fee schedules? Because that could be a significant issue for localities. In Fairfax County, the rates generally increase a small amount.

Mohsenin: This is a relatively new issue. Although it's been going on for some time, the effect of it is very gradual. We don't anticipate that it will have an immediate impact on us. Every year, we look at a five-year plan for our sewer rates and our capital. We anticipate continuing to do that by small increases, to account for whatever capital we need in the future and to avoid rate spikes.

Gross: Okay, thank you. We don't want spikes.

Shahram then presented on wastewater challenges in the Blue Plains service area. The Potomac Interceptor, the pipe north of the County, has a limited capacity, as it was built back in the early 1960s. For the average flow of 31 million gallons per day, which is what is allocated to the County at Blue Plains that is not an issue. The problem is with wet weather flows. When it rains, some of that rainwater gets into the sanitary sewer system even though there is a separate system for stormwater and sanitary flow. The sanitary system isn't tight; there is always water coming into it. The County will be mitigating some of that with the Difficult Run Pumping Station, mentioned earlier in the presentation. However, that will not solve all problems in the future. The Blue Plains Technical Committee hired a

consultant to look at which wet weather flow mitigation options exist for member jurisdictions going forward.

The same wet weather flow issue applies to Alexandria. This is not a new issue; it's been going on since the 1980s. The County has invested a lot of money in its own sewer system to make it tighter, however wet weather flow is still an issue. In the older parts of Fairfax County, in the Alexandria service area, it was normal to have areaway drains and sump pumps tied into the sanitary sewer system. When it rains, all those sump pumps send water into the sewer system. Adding to the wet weather problem is leakage from some of the old laterals that are privately owned by homeowners.

Fairfax County's capacity at the Alexandria treatment plant is 60%. In other words, the County owns 60% of that plant capacity. However, the wet weather flow obligation, based on modeling and ongoing negotiations, is about 11% of the total flow of the facilities. Staff are working to finalize those numbers and come to the Board with a cost share agreement for approval. Staff have been working with the City of Alexandria, Alexandria Sanitation Authority and all of the relevant jurisdiction consultants. Staff have tried to be as equitable as possible in identifying where the County flow goes, flow units and the percentage of the capacity of that unit that is going to be utilized by the County. In some of the facilities, the County has no flow going to it, so the County is not paying for any of that. Thank you.

Board Discussion:

Gross: Thank you, Shahram. When we get elected, we don't realize we're going to be spending a good portion of our time on sewers and where the water goes, but it's such an important basic need for our communities. I don't believe there's any action for this item; this is an update. There will be actions later on, at which point the Board will be asked to approve something.

McKay: When I look at the capacity allocations, a disproportionate allocation exists at Noman Cole. I am wondering from a security standpoint if we evaluate that. These facilities have been put at risk in the past in terms of security concerns, and that is a lot coming out of one plant. When we look at future expansions and purchase agreements, are we cognizant of the security elements and trying to make sure we are not putting a disproportionate number of eggs in one basket?

Mohsenin: Yes.

Storck: What is the status of the Alexandria Renew agreement?

Mohsenin: We are reviewing a draft with the County Attorney's office. We have comments that we are going to send back to them. I am hoping that within the next three months we should be able to present you with a draft of that agreement for your consideration.

Storck: I just want to make sure my colleagues understand: Because of the old combined sewer overflow (CSO) system Alexandria has, there's been funds allocated at the state level for Alexandria to expedite system improvements. Hopefully by 2025, they'll have very few overflows that spill into the Potomac River and pollute the shores of Mount Vernon and Fairfax County. I encourage us to stay focused on that. As you were saying here, most of that cost is not ours. It is going to be borne by the City of Alexandria. But because it's a combined plant that we own 60% of, we have to be careful how costs are allocated and ensure we only pay for our portion that doesn't include the combined flows.

Gross: When the Board was presented with the wet weather problem several years ago, it was before the General Assembly got involved in mandating cleanup of CSOs. What we discussed at that time got put on the back burner when the General Assembly got involved. I understand that Alexandria Renew is taking on the responsibility of all of that. Some of those priorities may have changed as they have had to move forward on one thing and put other things aside. The City of Alexandria kind of handed the whole thing off to Alexandria Renew.

Mohsenin: One more thing I would add: In terms of the project timeline and schedule, Alexandria Renew is continuing full force to meet the 2025 deadline. Our agreement with them is not going to impact the progress on the project. We're just trying to be equitable and fine tune all the details.

Foust: For the \$25 million that the state is putting in, do we get an allocation of some portion of that toward our cost in this effort?

Mohsenin: No, we don't. That allocation is strictly for combined sewer systems. There are three jurisdictions in Virginia – Richmond, Lynchburg and Alexandria – that have combined sewer systems. That money is strictly grant money allocated for combined sewer system upgrades. Because we have identified our own wet weather flow needs in the system, we are not going to get any of that grant money.

Gross: It is fortunate that we don't have CSO's in Fairfax County. The bad news is that we don't qualify for that money either.

Foust: I just thought this project – and I thought it was a \$40 million project from Fairfax's perspective- was necessary because of the need to address the combined sewer system in Alexandria. That's not correct?

Gross: No.

Randy Bartlett, Director of Public Works and Environmental Services: When we presented to you last year, we were talking about our wet weather flow that we have to pay to address. Alexandria was talking about their CSOs that go down to Little Hunting Creek or Cameron Run. As we were having that conversation, the state adopted the legislation that said Alexandria had to address the Potomac side of it by 2025 also. That added a lot into what Alexandria had to do by 2025. That is what changed since last year. The state funding is to help them address what's coming to the Potomac – for that additional part that they added in, that they have to do much quicker.

Mohsenin: We are not paying towards that at all.

Storck: Alexandria discussed CSOs from Cameron Run to Great Hunting Creek, not Little Hunting Creek. You talked earlier about overall flows. How do we stack up in terms of the amount of water that we generate per person versus what they may do out West where they have far more focus on water? Are we using twice as much as somebody who may be out West? Do you see that at some point coming together and reducing our overall usage levels? Which would in turn reduce the intensity of what you have to process.

Bartlett: We would need to get back to you on that type of question. We can check into that.

Storck: I would be interested in that order of magnitude.

Bartlett: I am not familiar with usages out there. We would have to look at sewer flows to figure out what is irrigation and not irrigation. We can get some information back to you.

Storck: Just broad wastewater flows; not so much water.

Gross: I know at the COG Energy, Environment and Land Use Committee for which I am a Vice-Chair, most of the discussion from folks out West is about the lack of water, rather than the amount and flows. Some of the challenges they have are actually more about some of the stuff that is in the water, rather than the amount.

Shahram, thank you very much for your presentation. We will hear more as we move along. If there is no other business to come before the Committee, the next Environmental Committee Meeting is on Tuesday, June 18, 2019 at 3:00 PM. We are adjourned at 12:20 PM.