

Summary

Project:	Arlington County Biosolids Upgrade	
Subject:	Biosolids Advisory Panel Meeting 5	
Date:	Thursday, October 06, 2022	
Location:	WebEx	
Attendees:	John Bloom, C2E2 Sandra Borden, Crystal City Civic Association Joan McIntyre, EcoAction Arlington Claire Noakes, C2E2 Energy Committee Steve Young, Joint Facilities Advisory Commission Lauren Bailey, Arlington Ridge Civic Association Peter Robertson, Fiscal Affairs Advisory Commission Paul Guttridge, Aurora Highlands Civic Association	Antron Sutton, Arlington County Water Pollution Control Bureau Lisa Racey, Arlington County Water Pollution Control Bureau Mary Strawn, Arlington County Water Pollution Control Bureau Fasil Haile, Arlington County Water Pollution Control Bureau Peter Golkin, Arlington County Department of Environmental Services Brian Balchunas, HDR Jennifer Ninete, HDR Stephanie Spalding, HDR Rahkia Nance, HDR Jessica Host, HDR Samantha Villegas, Raftelis

Agenda

1. Introductions
2. Program and Procurement Updates
3. Outreach
4. Re-Gen Program Sustainability: Envision and Leadership in Energy and Environmental Design (LEED)
5. Website Updates
6. PFAS Update
7. Next Steps

Welcome and Introductions (S. Villegas)

Samantha opened the meeting and welcomed attendees to the fifth advisory panel meeting. She shared details of how to use the WebEx virtual meeting platform, reviewed the agenda, and introduced the team.

Antron Sutton, the recently hired chief of the Arlington County Water Pollution Control Bureau, introduced himself to the group and shared his excitement about his new role.

Program and Procurement Updates (M. Strawn)

Mary Strawn reminded the Advisory Panel about the overall scope of the program and the program goals. The upgrades to the solids handling facilities will reduce the volume of biosolids produced, make a higher quality biosolids product, and generate biogas.

She explained that HDR is the program manager and acts in an advisory capacity for the County to help define the scope and implementation plans for the program. In the future, HDR will oversee the design and construction. HDR is prohibited in participating in any design or construction contracts for the program.

The program components include program management, gravity thickeners, early work package, and the main work package. The County is hoping to begin design on gravity thickeners in late 2022. The early work and main work package are a single Design Build contract, which the County hopes to have signed in 2023.

Since the last stakeholder meeting, the County has received proposals for gravity thickener design work and has selected a design engineer. The County also issued a RFQ and received applications for the Design Build work.

In the next quarter, the County will begin the design of the gravity thickeners and issuing the RFP to the qualified Design Build offerors.

Mary thanked the group for their feedback on greenhouse gases, PFAS and other constituents of concern, carbon capture, and balancing fiscal responsibilities. She noted that PFAS sampling will begin soon.

Regarding stakeholder feedback on emerging technologies, Brian noted that the team recently became aware of a wastewater renewable natural gas (RNG) facility in Europe that is pursuing capture and reuse of the carbon dioxide from the raw biogas. The project team will continue to follow up on this and other emerging technologies.

Outreach (M. Strawn)

Mary shared that Arlington County Water Pollution Control Bureau participated in the Rock-N-Recycle event this year. She noted that there was continued interest in the biosolids and biogas and people are attuned to using these products locally.

The County will continue to look for future outreach opportunities.

Re-Gen Program Sustainability: Envision and Leadership in Energy and Environmental Design (LEED) (J. Ninete)

Jennifer shared the Arlington Re-Gen Sustainability Goals and how they align with Arlington County's Facility Sustainability Policy.

She explained why the Envision rating system is better suited for the Re-Gen program than LEED, as it is geared towards infrastructure projects. The County is moving forward with the Envision process for the Re-Gen program.

Envision allows flexibility and sets a standard to promote sustainability integration for infrastructure projects. The system was administered by the Institute of Sustainable Infrastructure (ISI). Facilities seeking Envision verification document the ways and to what extent they have incorporated sustainability into their infrastructure projects.

The system has 64 credit structures organized into five sections:

- Quality of Life
 - Purpose, Well-being, and Community
- Leadership
 - Collaboration, Planning, and Economy
- Resource Allocation
 - Materials, Energy, and Water
- Climate and Resilience
 - Emissions and Resilience
- Natural World
 - Siting, Conservation, and Ecology

Envision defines recognition level by the percent of total applicable points earned. Although it is early in the verification process, the Arlington Re-Gen program appears to be able to earn a silver or gold level of recognition.

Envision Project Examples:

There are more than 100 verified publicly announced projects and four are in Virginia. Jennifer highlighted the following projects in the Washington metropolitan area:

- AlexRenew Nutrient Management Facility (Alexandria, Virginia), which incorporates community quality of life considerations, including a multi-purpose athletic field, built on top of their Nutrient Management Facility
- Little Patuxent Water Reclamation Plant Biosolids Processing Facilities Improvement Project (Howard County, Maryland)

Website Updates (R. Nance)

Rahkia thanked the group for their feedback on the development of the website. She shared a preview of the website, which included an updated landing page, as well as updated PFAS information and Biosolids FAQ and Resources pages. A tentative launch date has been set for late October.

PFAS Update (B. Balchunas)

Brian led the discussion about PFAS and noted that concentration levels are measured in very small units. PFAS exposure happens at low levels, but the County recognizes and understands the importance of understanding the local impact. Brian reiterated that wastewater treatment plants are not a source of PFAS and shared a chart of relative exposure levels to demonstrate

the minor contribution of biosolids. Brian also noted that source control is a key component to reduce environmental PFAS.

The County has initiated a PFAS sampling and testing program for both wastewater and biosolids. The County expects results to show low levels of PFAS based on the lack of industrial contributors and drinking water sampling results but has contacted Regan National Airport to understand their foam fire suppression system usage and potential PFAS contribution to the WPCP.

Next Steps (M. Strawn)

Mary thanked the group for attending and for their input during the meeting.

Mary noted that the group will reconvene in Winter 2023. The County will notify the group of the website launch and any additional outreach opportunities including community meetings and newsletter articles.

Question	Response
Steve Young: I just want to encourage looking at hydrogen scenarios where instead of methane being the product, hydrogen is the product. I understand hydrogen is an emerging technology; it has the major advantage of not generating greenhouse gases releases when used. Arlington County Board Vice Chair Christian Dorsey mentioned interest in hydrogen this week in a civic association meeting.	Mary Strawn: Thank you for the information about Vice Chair Dorsey’s comments. The County will continue to follow the emerging technologies.
John Bloom: The County Board recently issued guidance on the preferred use of renewable electricity over any kind of fossil fuel energy source. In addition, a revised Facility Sustainability Policy is being discussed.	Mary Strawn: We recently received a copy of that communication that occurred over the summer, and we are evaluating it with this project. We will monitor for updates to the Facility Sustainability Policy.
Paul Guttridge: Concerning sustainability goals, are those specific to this program or are they inherent to the Envision software and we score them in a certain way? Are there goals missing?	Jennifer Ninete: Envision doesn’t require specific sustainability goals but it does direct project teams to develop their own sustainability goals, then show how you reviewed and tracked your targets during the program. The goals that were shown were developed by the project team to align with the County’s sustainability goals, as required by the Facility Sustainability Policy
John Bloom: We do deal a fair amount with LEED and there is a lot to appreciate in it. The issue that comes up repeatedly is that developers seem to think that we are focused	Jennifer Ninete: The most important thing is introducing the questions that are outlined in the criteria. Some credits have seven criteria, but it really gets down to what is important to

Question	Response
<p>on earning points and we are really not. It is really how the points are earned. We are focused on energy and greenhouse gas emissions, and three of the 59 criteria deal with that, which doesn't address our issues very much. Envision seems very broadly focused. It is more important to focus on how the points are earned instead than the point total or medal color.</p>	<p>the project and the County. It puts ideas in two buckets by highlighting things the County is already doing well and provides a bucket of opportunities to make decisions on what is right for our project.</p>
<p>Paul Guttridge: Do you revisit the scores as you go along in the project? Will you be coming back to us on where we are on this throughout the process?</p>	<p>Jennifer Ninete: We perform a preliminary evaluation; some of the credits are things that happened during the project planning phase. For items related to design and construction, this group would be updated as often as warranted. We keep track of all the points in a living document. Preliminary submittals occur at the 90% design stage for verification, at which point changes are not likely. Envision requires submittal of a post-construction report to verify the construction-related credits.</p>
<p>Joan McIntyre: A good approach would be to start with the Platinum rating instead of setting a low bar of Silver/Gold. I would like to maximize the approach.</p> <p>It does matter what the criteria is and exactly when we will get a better sense of what credits you are going after and what design is being done to meet that. This is especially true for embodied carbon where more quantifiable data would be of interest.</p> <p>Is there a performance requirement after the fact? LEED does not.</p> <p>We want to see the quantifiable issues on carbon rather than just an overall score.</p>	<p>Jennifer Ninete: The initial assessment and credits will need to be reviewed as the project moves into the design phase so that we can set the expectation for the designer.</p> <p>We track both a lower level of achievement based on what we know now and then a high level of achievement that could come out of a brainstorming session of how to strive to get more credits. Platinum level recognition is a great goal, but we need to consider the financial feasibility of the credits in this program.</p> <p>Some Envision credits are qualitative and others are quantitative. Quantitative credits are usually shown as an improvement over a baseline.</p>
<p>Joan McIntyre: Will Envision include a baseline facility comparison?</p>	<p>Jennifer Ninete: We selected the existing facility as the top choice but if there is no existing baseline, alternative options can be used (industry standards or other local facilities).</p>
<p>Claire Noakes: On the community education and promotion and the bond referendum, this project is being voted on right now but are</p>	<p>Mary Strawn: No, we are not actively promoting this project as part of the bond referendum. The County will check and see if</p>

Question	Response
<p>you undergoing a campaign to educate people on what they are voting on?</p> <p>As you are developing messaging, you want to get the timing and sequencing right for voting.</p>	<p>we need to do any additional outreach around that.</p>
<p>Steve Young: The big issues are that PFAS don't break down and they accumulate in organisms over time. So even though concentrations may be low, the cumulative risk can increase.</p>	<p>Brian Balchunas: We agree – the presentation was meant to demonstrate that the low concentrations are difficult to fathom.</p> <p>The only way to get rid of PFAS is to stop producing them. Otherwise, they will remain in our environment.</p>
<p>Joan McIntyre: I think it will be important to make clear about tracing back to the source of PFAS. I suspect you can tie it back to industrial issues, but I think it is important for people to know the background and the stories out there.</p>	<p>Brian Balchunas: That is a good comment specifically concerning the Maine farmers whose land is unusable because of biosolids containing high levels of PFAS. That wastewater treatment plant in Maine was treating significant industrial wastewater. It is a good idea to make sure we can present the context of what others are seeing.</p>
<p>Joan McIntyre: During the next meeting I would like one topic to be further information for Envision and the credits you are looking for.</p>	<p>Mary Strawn: We can present additional information as we revisit the ratings. We do have a fixed budget for this program so there are some credits that may be out of reach.</p>

CHAT:

- from Steve Young to everyone: 6:04 PM
 - Welcome, Antron!
- from Antron Sutton to everyone: 6:04 PM
 - Thank you!
- from Steve Young to everyone: 6:23 PM
 - I just want to encourage looking at hydrogen scenarios where instead of methane being the product, hydrogen is the product. I understand H is an emerging technology; it has the major advantage of not generating GHG releases when used. And FYI, County Board Vice Chair Dorsey mentioned interest in hydrogen this week in a civic assoc meeting.
- from Samantha Villegas to everyone: 6:23 PM
 - Thank you Steve.
- from Mary Strawn to everyone: 6:30 PM
 - Steve: Thanks for the information about Dorsey's comment. Yes, this is one of the novel technologies we're watching.
- from Samantha Villegas to everyone: 6:37 PM
 - John, Paul, then Joan

- from Steve Young to everyone: 6:37 PM
 - Re: Hydrogen, see for example <https://www.futurebridge.com/industry/perspectives-energy/green-hydrogen-from-wastewater-a-viable-option/>
- from Joan McIntyre to everyone: 6:52 PM
 - Like the change on the website--much clearer
- from Steve Young to everyone: 6:59 PM
 - The big issues are that PFAS don't break down, and they accumulate in organisms over time. So even though concentrations may be low, the cumulative risk can increase.
- from Steve Young to everyone: 7:01 PM
 - I am pleased that Arlington is going to be testing.
- from Samantha Villegas to everyone: 7:01 PM
 - Thank you, Steve.
- from Steve Young to everyone: 7:03 PM
 - Totally agree that we need source reduction!