



City of Harrisonburg Stormwater Advisory Committee *Meeting Summary*

February 5, 2025, 5:00-7:00 p.m.
Bluestone Room, 320 East Mosby

Members in attendance: Dany Fleming, Ferwerdin Barzanji, Wes Runion, Kurt Schick, Chelsea Thomas, Kent O'Donohue

Staff in attendance: Keith Thomas, Tom Hartman, Shayna Carter, Austin Shenk

Review and Adopt Minutes

Wes Runion motioned to approve the August 2024 meeting minutes. Kurt Schick seconded, and the motion passed unanimously.

Public Comment

There were no public comments.

Drainage Improvement Program Update

Hill Street to N. Mason Street- Keith Thomas updated the committee that the study began earlier this year. He described that the study would evaluate the adequacy of existing stormwater infrastructure in the neighborhood and how to best make improvements to the infrastructure or alternative routing to help lessen the frequency and severity of flooding throughout the neighborhood. He noted that staff contracted Wetland Studies and Solutions, Inc. (WSSI) to conduct survey work. Keith mentioned that the survey work was anticipated to go until late March. He highlighted that approximately 350 residents of the neighborhood were sent letters to notify them of the work. Keith mentioned that after the survey work was complete, WSSI will use that data to create a model of existing conditions. He noted that there will be a public meeting for residents of the neighborhood for the existing conditions model will be presented to them and to allow the residents to share their flooding concerns. Keith reminded the committee that the study will be completed in two phases. The first phase will consist of the survey work, the existing conditions model, and the first public meeting. He noted that the second half of the project will take the feedback from the first public meeting to update the model and evaluate alternatives to address flooding concerns. A second public meeting will be held to present the findings to the community.

Dany Fleming asked if staff had observed flooding in the neighborhood. Keith replied that there have been several members of the neighborhood that consistently report flooding after heavy storms. He explained that there are old pipes that have deteriorated over time throughout the neighborhood. Keith noted that there were several reports of flooding in the Hill Street neighborhood after the heavy storms in August. Tom Hartman highlighted that the deteriorated pipes are primarily privately-owned pipes that do not have an easement granted to the City. Tom noted that all City-owned infrastructure was maintained in the neighborhood.

Tom acknowledged that when the study is complete, the challenge will be getting the project funded.

Kent O'Donohue asked how the City planned to handle lack of easements. Keith explained that the letter that was mailed to the members of the neighborhood detailed that state code will allow right of entry 30

days after notification. Tom clarified that this letter was just to notify residents that staff would be walking through their yards. He continued that if the project ever got funded and work needed to be done on private property, then staff would ensure that every single property owner was communicated with and made aware of the project to obtain any necessary easements and right-of-way.

Charles to Madison St- Shayna Carter updated the committee that staff were not going to apply for the Federal Emergency Management Agency (FEMA) Building Resilient Infrastructure and Communities (BRIC) grant this year. She noted that FEMA had updated their grant application to now require a Resilience Plan. Shayna explained that the City did not have an official Resilience Plan but has begun working with the Central Shenandoah Planning District Commission (CSPDC) to create one. She noted that staff did not anticipate this plan to be complete until next year, which made them ineligible to apply for the BRIC grant. She said that staff would apply again in 2026 once they had a finalized Resilience Plan.

MS4 Program Updates

Keith updated the committee that the Stormwater Improvement Plan update was almost complete. Keith reminded the committee that Smith Creek, Blacks Run, and Cooks Creek all have waste load allocations and staff need to create Action Plans for each local Total Maximum Daily Load (TMDL) to be submitted to the Department of Environmental Quality (DEQ.) Keith also highlighted that these goals will likely not be completed for several hundred years. He noted that Tetra Tech estimated that the Blacks Run TMDL was anticipated to be complete in approximately 200 years.

Keith then mentioned that there were unused funds left for the Stormwater Improvement Plan. He mentioned that Tetra Tech at the City's request have reallocated those funds to begin preliminary designs on the highest ranked potential Best Management Practice (BMP). Keith noted that the highest ranked project is to upsize a BMP that is located next to Thomas Harrison Middle School. Keith then mentioned that Tetra Tech was anticipated to attend the next SWAC meeting to present the completed Stormwater Improvement Plan.

Keith then discussed that Shayna and Austin have completed the Stormwater Pollution Prevention Plan inspections for the Fall. Keith noted that there were 14 City owned facilities that currently have SWPPPs. He highlighted that these inspections were to confirm no pollution was occurring at these facilities. Dany asked how many of these facilities were schools, Keith confirmed that there are 3 City School managed facilities that had SWPPPs. Kent asked if staff conduct inspections of private BMPs. Keith noted that Community Development was responsible for those inspections and that information was included in our annual report to DEQ every year.

Kent asked if staff knew how many privately-owned BMPs were covered under a maintenance agreement. Keith stated that there are still a lot of privately-owned BMPs that do not have a maintenance agreement because they were constructed before most stormwater regulations were in place.

Keith noted that Shayna and Austin have completed most City owned BMP inspections. He noted that there were about 60 BMPs that need to be inspected. Keith mentioned that the stream restoration projects will need to be inspected this year. Keith then highlighted that there were changes in the permit that require a maintenance timeline.

Keith then discussed that there was a BMP at Thomas Harrison Middle School that needs to be replaced. Keith noted that this BMP was built to treat runoff from the school, and it was currently overgrown and does not function as it was designed. Keith noted that the BMP had become a wetland due to lack of maintenance. He mentioned that a new BMP will need to be built in its place. He explained that Public

Works staff met with staff from City Schools to create a plan on how to address the BMP at Thomas Harrison.

Dany asked what the expected deadline to complete the upgrades would be. Keith expressed that staff would set a timeline at the time of inspection based on the necessity of the maintenance needed. He noted that since this was the first year that a maintenance timeline is required, there may be some leniency given that this project was estimated to cost over \$500,000. He also mentioned that staff will be working with City School staff to create a prioritized list of which school BMPs need maintenance first and which ones can wait. Tom then highlighted that funding for these BMP maintenance projects will show up in the City Schools Capital Improvement Plan (CIP).

HCAP Updates

Shayna provided the committee with a report submitted by the Shenandoah Valley Soil and Water Conservation District (SVSWCD). This report highlighted the activities of the previous quarter. She noted that the tree planting practice was still the most popular and they expected to receive applications for permeable pavement and impervious surface remove before the end of the year.

Dany noted that there was a drastic increase in completed projects this year compared to last year. Tom emphasized that this was the third year of increasing the cost share cap to 100% and reducing the number of minimum trees needed and that was believed to cause an increase in interest.

Shayna then mentioned that promotion of HCAP remains on hold until the SVSWCD has caught up on the number of site visit requests.

VMRC Project Update

Keith reminded the committee that this project was to construct a wet pond across from Virginia Mennonite Retirement Community (VMRC). He noted that Geotech work was done at the project site and the City engineer was expected to have 100% designs for the project completed soon. He noted that staff hope to complete the Right of Way easements completed soon. He also highlighted that the next steps will be to create a procurement package and then construct the project.

Wes asked if the project still anticipated 75% of the project cost to be covered by DEQ's Stormwater Local Assistance Fund (SLAF) grant. Keith confirmed that to be true. He then highlighted that DEQ has the option to award 50% or 75% of the estimated cost to SLAF projects and the VMRC project was awarded 75% due to Harrisonburg being designated as a "fiscally stressed area." He noted that staff have received a grant agreement from DEQ and will work to get final signatures on the agreement. Keith also noted that DEQ added a timeline requirement for SLAF projects to be completed. He noted that the VMRC project will need to begin construction in July.

Dany then noted that the General Assembly was expected to add \$40 million into the SLAF budget this year. He expressed that he was hopeful that many more City projects would be funded by SLAF.

Keith then updated the committee, that staff applied for another SLAF grant to purchase permanent nutrient credits to help reach the 2028 TMDL requirements. Kent noted that regulations to buy credits differ between construction projects and for TMDL requirements. Keith highlighted that for TMDL requirements, the City can only purchase credits from the Potomac Watershed. Keith reported that it is getting increasingly harder to obtain credits now that 2028 is getting closer and the availability of the credit markets will be getting smaller.

Mountain View Drive Stream Restoration Update

Keith mentioned that after the recent heavy storms this year, the engineer that designed the Mountain View Drive stream restoration provided a report to City staff of maintenance items that need to be completed. Keith noted that most of the maintenance items listed were projects larger than City staff could complete. He explained that staff have created an on-call maintenance contract to fix the issues at Mountain View but also at other larger BMP maintenance issues throughout the City.

Dany asked if the easement at Cardinal Drive would impact the Mountain View stream restoration. Tom then mentioned that would have a minimal effect on the stream restoration.

Wes then asked if the engineer reevaluated the upstream volume that comes to the Mountain View Project. He noted that a large portion of the City drains to this stream section. Keith explained that upstream detention would have little impact on this stream section. He noted that the culvert that goes under Eastover Drive causes a pinch point. Wes asked how much it would cost to upsize the culvert. Tom explained that it would be costly, but it would also cause a ripple effect for the downstream sections. Tom noted that the goal was to enhance the armor around that section. He then mentioned that the project came in under budget so there are still funds to cover the maintenance expenses.

Dany asked if there was any to coordinate with Virginia Department of Transportation (VDOT) as they work through the Interstate 81 expansion project to add BMPs to help mitigate the issue at Mountain View Drive. Tom mentioned that the VDOT project was directing their stormwater projects below the stream to the Cardinal Drive area. Keith then highlighted that the City partnered with VDOT to add a BMP above the Woodland Drive neighborhood to help alleviate some of their flooding.

Northend Greenway Stream Restoration Update

Keith stated that the City had received its final SLAF payment from DEQ and the project is officially completed.

Blacks Run South Stream Restoration Update

Keith updated the committee that the project was nearly 90% complete. He noted that the contractor will need to come back in the spring to replant some trees. He noted that staff met with the contractor to update the specification for tree plantings and the contractor hired a new sub-contractor to plant the replacement trees as well as the portion that needs an initial planting.

Water Sampling Updates

Austin Shenk updated the committee that staff had been conducting water sampling since the early 2000's on a quarterly basis and had recently increased that to a monthly basis. Austin mentioned that the water samples evaluate for E. coli in several different locations throughout the City. He noted that most of the samples had evidence of high amounts of E. coli. He explained that most of the E. coli from these samples come from fecal coliform from warm blooded animals such as humans, pets, and wild birds and animals. Austin highlighted the City was not doing anything to mitigate or address the E. coli issue, but it was more for informational purposes.

Wes pointed out that the spring located downtown had high levels of E. coli. He mentioned that when DEQ conducted water sampling in Harrisonburg they also found that location to be high in E. coli. He noted that most of that section is underground, and it was largely unknown what the source of pollution is for that section.

Other Topics

Shayna updated the committee that the City will host another Pollinators in Your Backyard event this year. She noted that it will be held in the Ice House again this year. Shayna mentioned that staff are still working to select speakers for the event. She directed the committee to Facebook, Instagram, and the stormwater newsletter for updates as the event planning progressed.

Shayna updated the committee that the Urban Forestry program had been working through several different studies. She described that one of them was a tree canopy study that was recently completed. Through this study, staff learned that tree canopy coverage in the City had dropped 3% since 2018. Shayna noted that a large portion of that loss was from the Emerald Ash Borer. She then mentioned that staff are working with the National Aeronautics and Space Administration (NASA) to create a report on tree canopy loss throughout the City and the impact that it has on stormwater. Shayna noted that staff met with the NASA team. She explained that NASA will be based on JMU campus and will be working with a professor there as a scientific advisor for the project. Shayna noted that it is a 10-week project and will be completed in the spring.

Shayna then informed the committee that this year the Urban Forestry team are celebrating 20 years of Tree City USA designation. She noted that staff will host tree plantings throughout the year to celebrate.

Dany then asked if staff will ever have enough data to understand the full extent of the Emerald Ash Borer and its impact. Keith expressed that the Urban Forestry staff have the specific number of Ash trees they had to remove from City property because of damage from the Emerald Ash Borer. He also noted that in the tree canopy study that was recently completed, the firm used maps from 2016, before the Emerald Ash Borer arrived in Harrisonburg to create baseline data. The firm then compared the 2016 maps to maps from 2023 to determine the 3% decline in tree canopy. Keith noted that staff largely believed that 3% was directly related to the Emerald Ash Borer. Wes then highlighted that the 2023 maps would not be able to pick up the trees that have been recently planted and future maps will hopefully show an increase in canopy due to all the trees being planted now.

Austin then updated the committee on the bioreactor project. He mentioned that the City had contracted the United States Geological Survey (USGS) to conduct water quality sampling. Austin noted that two of the locations will be the inflow and outflow of the current bioreactor at Purcell Park. Austin explained that USGS conducted sampling at various locations around the City to identify springs. He mentioned that springs are ideal locations to add bioreactors. USGS identified three locations that were viable and will continue to sample those locations to collect baseline data. Austin noted that these samples will be taken quarterly and that they will continue to look for other potential spring locations.

Wes noted that he worked with a JMU professor previously to find springs in the City and remembered one being identified below Newman Lake. Keith explained that staff advised USGS not to look at properties within Rockingham County or on JMU property due to them both having their own MS4 permits.

Kent asked if the sampling and future bioreactor locations had to be at the spring itself. Keith clarified that once the water enters the stream, they would be required to obtain a Water Withdraw Permit from DEQ to pipe the water to the bioreactor and that causes additional hangups and would make the project less feasible. He explained that if they collect the water directly from the spring, staff can bypass that permit requirement.

Next Meeting Dates

2025 Dates

- May 14th
- August 6th
- November 19th