

## **Open Work Session**

### **Update on Stormwater Management During Recent Heavy Rain Event**

**June 5, 2018**

Mr. Dallas Baker, Director of Public Works, came before Council. He said, as Council knows, during the week of May 18th and 19th, the County had a lot of rain, and a lot of rain leading up to that week. He said the number he heard was 10.5 inches throughout that week. He said from Friday May 18th into the 19<sup>th</sup>, they reported 6.5 inches of rain out at the landfill. He said he wants to talk about a lot of the problems they have been experiencing throughout the County lately, and the bigger picture is not just what was happening that week, but what has been happening over the past month. He referred to his slide presentation, and said, on the left side is a map of the County from the National Weather Service. He said, over the past 30 days, their normal rainfall amounts ranged from about 2 to 3 inches. He said this month they have actually experienced 10 to 15 inches, which is over five times the amount of rain they normally receive. He said they have heard a lot of anecdotal stories, such as "This place was not flooded during the August storm," but the reason is that the ground is just super saturated at this point. He said they are seeing folks who dig down two inches and are already hitting groundwater, which is pretty remarkable. He said the rain the County has been getting is not really a particular single storm, and 6.5 inches is a lot, but it is this continual soaking they are receiving that is really causing a lot of the issues they have been experiencing. He said, as far as May 18<sup>th</sup> and 19<sup>th</sup> when they received the heaviest of the downpours, they received 68 phone calls at Public Works, but the Sheriff's Office received more, and Emergency Services received even more, so that is not the total calls the County received, but was just at Public Works. He said there were five roads closed for high water, and they had nine partial washouts, the worst of which was down on Bent Pine Road, which is the picture seen in the slide. He said they actually had an end section of the pipe dislodge. He said it was held on with a band and it became dislodged when the washout occurred.

Mr. Baker said one of the things he showed the last time he was before Council was a map of the County with the locations folks had marked on their maps from the March drainage meetings. He said they have taken that a step further with the help of Mr. Jack Lennox's Department and Mr. Frank McKenzie in mapping these locations throughout the County. He said it is a little hard to see on the slide, but the green squares on the map are the places where the Roads Division has experienced flooding issues. He said the red dots are locations that folks marked during the March meetings, and the little orange triangles are the places where they received calls from during this past storm. He said they are going to continue to add to these data points if/when they get additional storms to help begin painting a bigger picture of where they should concentrate their efforts for systemic approaches to addressing drainage throughout the County. He said they have this available in a GIS version as well that is actually interactive, so they can go in and click on the sites to receive information. He said some of the dots are where someone will call and say they have flooding, and they might receive two or three calls in the same location, so there is one dot for that particular road, but, when clicking on it, they would see there were three different people, basically data points, within that dot.

Mr. Baker said he is going to go over some of the larger, more high-profile problems they experienced over this past storm. He said one of the biggest problems was Pemberton Drive at Anderson Mill Pond, which is shown on the slide at the top with water in the road. He said what is interesting about this is, during the August storm, this road did not overtop, but the State highway upstream did overtop, and the cause was that big yellow piece of plastic seen in the middle picture of the power point, which is a paddle boat that had gotten lodged in the outfall pipe leading from the upstream side of the dam to the

downstream side. He said, once that water level rose, the property owner tried to get out there. He said he would like to point out the upstream side of Anderson Mill Pond is privately owned, the pond itself is privately owned, the outfall is privately owned, and the upstream embankment is privately owned. He said they are having discussions now with that property owner because it has recently changed hands in the last couple of years, and they are amenable to giving the County control over the upstream area because this could have, potentially, turned into another Barren Creek. He said, again, that yellow paddle boat got stuck in the pipe all the way to the right hand side, and, as Council can see, it caused a significant amount of damage to the pipe. He said even right now that pipe is probably only flowing about 60 percent full because it has been bent in. He said, once the water level drops a little more, they will get out there with their pipe saw to cut that thing off and try to get a less restricted opening. He said, when they pulled the boat out, the water dropped down. He said they looked in there and there was the carcass of a snapping turtle stuck in the pipe. He said then they looked in the other end and there was what looked like other debris somewhere trapped in the middle of that pipe, so they will continue to work with this and try to get the water flowing out.

Mr. Baker said Pratt Road flooded again. He said they had previously removed the pipe in question that led from Pratt Road to the culvert between Pratt Road and Pemberton Drive, and, again, they still saw a lot of the same amount of flooding. He said they do have the drainage study and have finished their review. He said they sent comments back to the consultant, and they expect to have a revised draft of the drainage study to him by the end of the month. He said, when he gets that back, he will certainly forward it on to Council, once he makes sure all of the questions were answered, and they present a report that provides everyone with all of the proper information. Mr. Cannon said he assumes part of the study will be reviewing the stormwater pond for the Hunters Mill addition, to which Mr. Baker responded, that is correct. He said the entire drainage area for that, basically, discharges through Pratt, into Pemberton, through Nithsdale, and Hunters Mill, and that is all being looked at. Mr. Cannon said, when he has gone by there, it appears everything still has not subsided, and the water level is still right at the top, to which Mr. Baker responded, it is because water is not going back into the ground right now. Mr. Baker referred Council to the picture on the far right of the power point, and said one thing that is interesting to note is that there had been some discussion during the August storm about putting a pipe in underneath the driveway that does not have a pipe, and he wants to point out that the picture on the right is the driveway that does not have the pipe. He said, in the cases where they see flooding on Pratt Road, the water level still does not back up that high, and that is one of the reasons they did not feel that putting a pipe in that location was really going to help anything because the water just does not back up that high. He said they would see significantly higher levels of flooding to get to that point, and that is just not something they are seeing. He said, again, he is just trying to show Council what their reason was behind trying to concentrate their efforts on places that are actually going to make a difference.

Mr. Baker said he would like to show Council a quick little video from downstream on Pratt Road. He said this is the swale behind Nithsdale where all of Pratt Road and this area drains to, and this is the water that is running behind Nithsdale. He said, when they receive calls asking to make the pipes bigger, and to make bigger swales, they have to start downstream because, if they make all of the pipes in the Pratt area bigger, the impact to these downstream property owners is only going to get worse. He said what Council can see upstream is what it used to look like before the August storm, and, as Council can see, that water has just eroded the channel behind these folks' houses. He said they have put in some riprap to try to protect that area, but, again, he just wants to give Council an idea of how, when they are making these improvements, they have to start downstream and work their way up because, otherwise, they are going to significantly impact other people's properties. Mr. Cannon asked if it drains to the

river, to which Mr. Baker responded, yes, from here it goes onto the river. He said the red line they can see on the right is the path of the water, and this video was taken almost right behind where that red line starts on the north side, and, again, it makes its way down. He said that image of the red line was taken from the first draft of the drainage study to show where they are recommending the County make improvements to. Mr. Cannon asked if the drainage from West Nithsdale goes over to that ditch, to which Mr. Baker responded, yes. He said everything in Nithsdale, basically, drains to Royal Mile, and then from Royal Mile it heads out to the river via this swale system. Mr. Cannon asked if this is part of the study, to which Baker responded, yes, it is.

Mr. Baker said there is another area that did not get a whole lot of attention, and that is Burning Tree Circle just off Riverside Drive. He said it is a big loop, basically, and the north side is where they have seen all of the flooding. He said they had about a foot and a half of water standing on top of their road. He said, while the north side had all the flooding, the south side, as seen in the middle picture, was clear because there is a drain pipe that goes through the middle of the block through a private pipe that is, basically, overgrown. He said they got in there with the GapVax and were able to clear out a large root mat, a lot of pine needles, and a lot of yard clippings that eventually make their way into these inlets and pipes, and are clogging them up. He said, in the two little pictures on the lower left, where the pipe went through the middle of the block, there were two yard inlets, and one had a fence built directly on top of it. He said, on the other one, someone had bricked up overtop the inlet, so that was closed off. He said they had to get permission from private property owners, since this was a private drainage easement, to get in there and access that, and they were eventually able to. He said two of the three owners gave them permission. He said the picture on the upper left with all the water shows what it looked like during the May 18<sup>th</sup> storm, but that is also what it looked like Monday morning. He said, after the rain the County had just this past weekend, this is what it looked like at 8:00 a.m. He said, by 3:00 p.m., once they got the pipe open, as seen in the picture on the right, they got it all drained out. He said they are out there actively trying to address these drainage issues.

Mr. Baker continued, and said he would like to talk about the Nanticoke corridor. He said they are seeing a lot of flooding along the area of Nanticoke Road at Willow Creek. He said the middle picture is the flooding the State is seeing on Nanticoke Road. He said, basically, all of that water from north of the farm fields is draining to the south, crossing Nanticoke Road, and ending up going down Willow Creek Drive. He said there is no swale system in place to collect that water. He said there is one pipe under Nanticoke Road at that point, but they feel there needs to be more, and also have it relocated. He said they would like to make improvements to the drainage on Nanticoke Road through Willow Creek. He said, as it makes its way to the river, there have to be some systemic improvements, again, downstream and up, and they are working with the State. He said they met with the State this week to have discussions about this location. He said the middle picture shows what Willow Creek looked like during the storm, and on the right is the picture of today where they can see the water and flooding. He said this is not all from the flooding, but it is from the groundwater seeping up through the roads and just causing a tremendous amount of damage. He said they might have to go in there and put an underdrain system in for the road to get this water moving off, but their infrastructure is getting damaged from these storms as well.

Mr. Baker said, further down Nanticoke Road at North Upper Ferry, they saw one of their roads closed, and the area on the map that says "flooding" is where they saw the road flooded at. He said there is a swale system there that drains to Nanticoke Road and then heads to the south. He said the yellow line is a ditch that has a lot of vegetation and sediment built up, and they have discussed with the State getting that cleaned out. He said the red section on the map shows a pipe crossing. He said there is no longer a

house there, but the pipe is undersized. He said there were some millings used to shore up that location, and those millings have since clogged up part of that pipe, so they are working with the State to either get that pipe completely removed because there is not a house there, or they are looking to have that pipe completely removed altogether.

Mr. Baker said, the folks in the audience will not follow this conversation regarding the Barrington Ridge emails that were going back and forth, but this area on the map is the location where Barrington Ridge eventually drains through. He said it heads from the north side, eventually crosses there, and heads further south where this water also heads to. Mr. Cannon asked how the cooperation has been with the State because he knows that all along Nanticoke Road he can see where work is needed, to which Mr. Baker responded, it has been good. He said they have a lot of work on their hands as well, but they have been very receptive. He said he called State Highway the week before last, and they came out last week. He said they set a meeting up, and they came out to the Roads Division. He said they met with them and went through these issues, as well as some others that he is going to present and talk about. He said the State is aware of the situation.

Mr. Baker said the other location that flooded was Nanticoke Road at Catchpenny Road. He said, in the upper right hand corner, Council can see what Catchpenny looked like, and he has some arrows to show where that areas flooded. He said, downstream of that, the water was going just as fast as it could through the pipe at Catchpenny, and they believe that pipe may be undersized, especially for the size of the storms they are now seeing in the area. He said they are asking the State to take a look at increasing that size. He said, whenever they add a new pipe or increase the pipe size on a State system, it has to go through the Office of Highway Hydraulics in Baltimore. He said they handle the drainage on all State roads throughout the State, so there is some work involved, and it is a slow process, but they have started the request by talking to them on the local level for their first ask. He said, as he mentioned, they met with State Highway to discuss the improvements, and they have asked for a possible study of the entire Nanticoke Road corridor. He said it is his recommendation to think about including this in their consolidated transportation plan letter they give to the State every year asking them to look at a drainage study for the Nanticoke corridor. He said he understands that when they get down into areas, such as Bivalve, they are not quite sure what to do, but they are looking to identify where the low points are on Nanticoke Road to then work with the State to try to get them access for the water getting from their road through the County's properties out to the river because it is affecting not just the County roads and private citizens, but everyone. He said that is what they think would help try to spur the wheels on to getting some more political pressure for them to move a study forward for that whole area.

Mr. Baker said they have also requested assistance from the State for clearing Peggy Neck Branch. He said there is a lot of debris built up by the Salisbury Bypass, and the upper picture on the right shows the location where they are talking about. He said it is, basically, right at the railroad lines between where the Perdue Mill is and the Bypass. He said, as Council can see on the bottom picture, all of the sediment that has been washing off the Bypass is holding back the flow on Peggy Neck Branch, so they really need to get that cleaned out. He said it is tough work, and it is work on the State level they are facing on the County level with trying to get equipment into places that do not want equipment in it, but they have told the State this is their number one ask because that really is holding back a lot of areas. He said some of the other work he showed Council on Nanticoke is going to require some engineering, but this is just simply shovels in the ground to get that soil and sediment out that is holding back the flow along Peggy Neck Branch, and flooding for the folks who live on the Old Ocean City corridor.

Mr. Baker said tomorrow they are meeting with State Highway and Councilman Dodd out on Maryland 350, Mr. Herman Road, at the Adkins Farm to talk about drainage issues up there as well. He said they had some preliminary discussion with State Highway about this issue when they stopped by for a visit.

He said these were their greatest hits from this past storm, but, if there are any other specific locations Council would like to discuss, he will do his best to answer questions. Mr. Joe Holloway said there was an issue at Walston Switch, and he understands a lot of bamboo was cut and deposited in a ditch. He then asked if anybody bothered to contact the landowner about that, to which Mr. Baker responded, he can check on that. He said he knows they sent the Gradall out and got that area scooped out. Mr. Joe Holloway said he saw a tandem truckload of bamboo out there, to which Mr. Baker responded, he believes they had to go back twice. He said they scooped it out, and then some more came floating down, so they had to go back a second time and scoop out some more. Mr. Joe Holloway said, apparently, that bamboo is located on a couple pieces of property, and he thinks it would be wise if they sent a letter to the property owners stating they should not be cutting it and putting it in the ditch. He said that is Beaver Run tax ditch that drains everything from Walston Switch up through most of the Delaware line, to which Mr. Baker responded, he will do that.

Mr. Kilmer said all of the "greatest hits" were in his district. He said, on the 18th, he and Mr. Cannon were driving around and talking on the phone, and drove through Pratt Road. He said Upper Ferry Road was closed down, and Pemberton Drive was closed down, so the only way people in Mr. Cannon's neighborhood could get out was through Pratt Road, which was kind of ironic considering the state Pratt Road had been in, so Pratt Road was the best road in that region, strangely enough. He said it is a tough situation. He then said he had mentioned to Mr. Baker the last time he was before Council about Levin Dashiell and Pemberton, and he understands there are problems with drainage being blocked up. He said, on some portions of Pemberton there is no drainage system between Crooked Oak and Rockawalkin Drive. He said there is not much in terms of drainage, it seems, and there are not any ditches or anything like that. He said Levin Dashiell does not have much in terms of drainage, and on Monday there were three or four places on that road that were flooded, to which Mr. Baker responded, and there still are some places on that road that are flooded. Mr. Kilmer said he understands they are dealing with where the drainage systems need to be upgraded, but he wonders about the places that do not have any sort of drainage already. He said he did not hear anything four weeks ago when they talked about these areas, and Mr. Baker said he would keep an eye on these areas, but they have flooded twice since they talked before. He then asked if there are plans to try to retrofit those areas with drainage, to which Mr. Baker responded, yes. He said they have been out, specifically, to the Levin Dashiell area, and he will talk on that. He said, as Mr. Kilmer mentioned, running ditches along the side of that road does not make much sense because the water wants to drain across the road, so, if they put swales along Levin Dashiell, it would have to go someplace to get it across. He said, basically, it all wants to get into Mitchell Pond, and that is, ultimately, where the grade wants to go, and for that they will need to acquire some type of easements and permission from the property owners between Levin Dashiell and Brick Kiln to get the water to those directions. He said that is something they are starting to look at, and asking what place makes the most sense. He said he will tell Council, off the top of his head, the farm field between Brick Kiln and Levin Dashiell, from an ease of construction standpoint, makes the most sense to get it across there. He said there are a lot of wooded areas in between those two locations. He said they are also considering, he believes, Marshall's Nursery because they have an outfall that eventually leads to Mitchell Pond, and the thought is maybe they can have some discussion with them to tie the County's swale into their system to then lead to Mitchell Pond. He said they are discussing their options about how to address these locations. He said Mr. Kilmer is right that they flooded again, and they recognize they need to do something, and they are looking around to see where the water

wants to go because the easiest thing for them is to get it to where it wants to already go. Mr. Kilmer said he also has had calls from private landowners along those areas asking what they can do to help, and asking if they can dig a ditch alongside the road, and he told them not to do that. He then asked how the County can work with the private individuals who want to do something on their property, or want to assist the County in doing something on the County road next to their property, to which Mr. Baker responded, one of the things the County can certainly do is stake out some locations. He said, if they want to build a big pond on their property, or dig some type of rain garden, they can certainly go out and stake out the limits of the County's right of way so they are digging in their right of way, and then, as always, keeping ditches clean and clear, and not putting trash and sediment in them. He said they went through and looked at some of the areas in Kilburnie, and it looked, in some places, like there was easily 30 years' worth of pine needles that had built up, and it was clear that some of them had just been recently dumped, and people were dumping into the private drainage swales, so keeping those areas clear really helps.

Mr. Kilmer said Mr. Baker mentioned Barrington Ridge, and, basically, the County has had some emails on that. He said, in situations where an HOA has gone defunct and does not have the ability to collect money and take care of their drainage system, he knows Mr. Baker has talked about legislation. He then said he spoke to someone who used to work in Public Works who said right now the County already has the ability to go out and do that work, and then assess the people and the HOA. He then asked if that is currently true, and whether someone can say their private drainage system needs to be cleaned, but they do not have the money to take care of it, and ask the County do that and assess the residents, to which Mr. Baker responded, he is not aware of how that would work, and he is not aware of Public Works having that authority. He said that is why they were proposing the idea of the Urban Services Commission, to which Mr. Kilmer responded, he knows they talked about doing that, and he thinks they should move forward with that. He clarified, he was told by someone who worked in Public Works a couple of years ago that the County can go out there and do that with the different HOAs, but then they will just charge the HOA, or charge the people in the HOA. He said maybe he and Mr. Baker can talk privately about who told him that. He said he knows there are a large number of folks who have an interest in doing that. He said these HOAs cannot collect the money, but they have serious drainage problems, and they are just looking to partner with the County to get it down, but they will pay for it. He said the sooner they can make that easier to do, he thinks they should probably work on that, to which Mr. Baker agreed.

Mr. Cannon said, in light of what happened in Ellicott City, he knows the Governor declared that as a state of emergency, which, of course, entails funding. He then asked Mr. Baker if he sees any signs from the State that they are interested in helping local jurisdictions by funding local jurisdictions in any way whatsoever with grants because, he believes, this is probably something that is pervasive throughout the State. He said he does not know, as he is only guessing, but it appears as such, to which Mr. Baker responded, specifically for drainage related issues, they have not seen many grants coming their way. He said they did apply for the grant for Pratt Road, but did not get that grant. Mr. Cannon asked why they did not get that, to which Mr. Baker responded, the State sent a very nice, generic, non-explanatory letter saying "Thanks for applying, but they have a lot of priorities, and please keep them in mind the next time they have an issue, and send them another grant application." Mr. Cannon asked what Department Mr. Baker filed with, to which Mr. Baker responded, he believes that was through the Department of Natural Resources. He said it was a grant one of the Delegates sent to him through an email when all of the Pratt Road issues came up last August. He said they got four grant applications, and they discussed them with the State agencies that administer the grants. He said, out of the four, there was one the State administrator said was the best shot at getting a grant, but it came back as a no.

He said there appears to be a lot of State money for water quality issues, WIP projects, and putting in bio-retention swales, but there does not appear to be a lot of grant opportunities for flooding. He said, when this whole stormwater thing first started, the priorities were loss of life, loss of property, and then the environment, and, at some point, the attitude changed to where it is loss of life, then environment, then loss of property, and he can site examples where they cannot go in and clean ditches now because they are labeled as a wetland, so they cannot clean things out that they used to be able to clean. He said it is what it is, and they try to work within the system, but, again, from what he has seen, a lot of the grants available out there are more for water quality issues, nutrient and phosphorus reductions, and less so much of getting water off property and moving. He said there seems to be money available for coastal resiliency and sea level rise. He said everyone talks about global warming and sea level rise, but what they are seeing is the impact when it rains more, and, whatever the cause, it is raining more, and that is the challenge. He said nobody on the State or Federal level thought of what aid they can provide on the local level to help them address rain. Mr. Cannon said he thinks this could be a fallout from the recession, and the fact that the State pulled back on highway user revenue. He said he thinks, overall, there were Counties that were losing money, and the State was backing out of a lot of these programs. He said soil conservation seemed to back out of a lot of ditch management, and he believes they are seeing a culmination of programs that were disbanded, and it was not taken seriously that maybe there would be a problem a few years down the road when they ignore the maintenance of ditches and waterways. He clarified, that is just his take. Mr. Joe Holloway said he agrees with Mr. Cannon. He said, when they lost \$7.5 million dollars a year in highway revenues, they had to make it up some way, so they took it away from maintenance of the ditches, and that is the trickle-down effect of the recession.

Mr. Joe Holloway said Mr. Baker was going to send a letter about Mr. Tom White on Line Road to the State of Delaware, and Mr. White asked if Council would also send that letter. He then asked Mr. Baker if he is familiar with that, to which Mr. Baker responded, yes. He said they have reached an impasse with Delaware, and he recommended Mr. White send a letter to the powers above Wicomico County asking them to communicate to Delaware. He said he also told him, eventually, Delaware is going to have a flooding problem on their side that heads in Maryland's direction, and, when that time comes, they will certainly remember Mr. White and ask for help. Mr. Joe Holloway said Mr. White has a letter Mr. Baker sent to him, which he would like Council to send out, to which Mr. Baker responded, Mr. White had indicated he needed some help with the letter, so he printed it out for him. Mr. Joe Holloway said it is basically asking Delaware to clean their ditch out. He thanked Mr. Baker for helping Mr. White with that.


Mr. Kilmer thanked Mr. Baker for all the work he and his folks have done in trying conditions. He said Council recognizes the work they do is important, and they are working hard. He said Council does not mean to complain about everything, but they certainly are hearing it from folks, so they try to let Mr. Baker know, to which Mr. Baker responded, they try to get to everyone as best as they can.


Mr. Cannon said he was driving down Pemberton Drive, and Mr. Lee Outen was out there, waist-deep in water. He said it was actually the area of one of the pictures Mr. Baker showed earlier with the beige boulders on the side of the road saving that road, which, evidently, worked very well. He said Mr. Outen was out there going right at it. He said Mr. Baker's documentation and whole presentation is excellent, and he is really paying attention to everything, and every issue the citizens are trying to bring to the County's attention, and he really likes where Mr. Baker is headed with it. Mr. Baker thanked Mr. Cannon. There was no further discussion.

*Signatures on next page*

**Open Work Session  
Update on Stormwater Management During Recent Heavy Rain Event  
June 5, 2018**

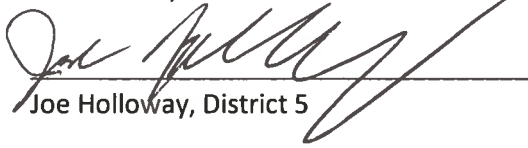
  
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John T. Cannon, President

  
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Larry W. Dodd, Vice President, District 3


  
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Ernest F. Davis, District 1

  
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Marc Kilmer, District 2

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John B. Hall, District 4

  
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Joe Holloway, District 5

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absent  
Matt Holloway, At-Large

  
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Laura Hurley, Council Administrator