

Open Work Session
Stormwater Management Update
September 18, 2018

Mr. Dallas Baker, Director of Public Works, came before Council, and said he will update Council on what he has been doing since they last met in May. He said they have been seeing significant rain in the area over the last couple of weeks. He said, just to follow up, the National Oceanic and Atmospheric Administration (NOAA) published some precipitation data for the Country, and Maryland actually had the second most wet July in the entire Country. He said Pennsylvania ranked 124, and Maryland ranked 123. He said they had four and a half inches over their historical average, so they are still continually seeing these large, large rain events.

Mr. Baker said he is going to start with the item that has gotten the most attention, which is Pratt Road. He said they completed that drainage study, and he believes that was included in the packet Council received. He said, in a nutshell, the study broke down the overall drainage shed, which is roughly 330 acres, into different chunks of projects they can implement over the coming years, and they broke down the design cost and the construction cost for each.

Mr. Baker said, starting on the upstream end with Hunter's Mill Pond, one of the recommendations was to enlarge their stormwater pond, which includes a design cost of about \$15,000, and construction of \$180,000. Mr. Cannon asked what part of these upgrades fall on the County, and what part falls on the homeowner's associations (HOA), to which Mr. Baker responded, that is a good question. He said the issue with getting into some of these areas to make improvements is whether they have easements, and the answer to that is no. He said a lot of these improvements are being recommended for areas outside of County-owned right of way. He said, when a lot of these developments were built in the 1980s, they were built to the standard at that time, and one thought is to make these improvements and then tell the HOA it is back on them because the County has gotten them to where they can handle the current storms, so now it is up to them to maintain it. He said, realistically, these construction costs are beyond what these HOAs are going to be able to afford. He said they may have put a couple of thousand dollars away to clear vegetation out of their swales, or maybe do a little bit of excavating, but these are capital construction costs. He said there are some grants available, and the thought process is to take these projects and start using them as their basis for applying for grants. He said because the stormwater management pond was built in the 1980s, one of the benefits is that it did not include water quality. He said they could, potentially, add in a water quality element and qualify for additional WIP type and MS4 type grant projects, but his thought moving forward is to take these and break them out.

Mr. Taylor said he has a comment on this, and Mr. Baker may already be aware of this, but the City of Salisbury has just done something like that with the Erin Mohr subdivision, where they, essentially, had the same type of problem, from what he heard. He said they have a deal where they are handling the engineering and contracting part, but the homeowners, apparently, are contributing, he thinks, 100 percent of the cost for doing it over a period of time, and he does not know exactly what that is. He said that might be kind of a prototype to look at in terms of the question of who pays what portion, and how they get the money, but that is just a thought since the City is getting all of that set up right now. Mr. Cannon said, from another perspective, it could be that Erin Mohr is addressing their concerns for their problems, but the County is having issues where these issues are creating problems for other areas, to which Mr. Taylor responded, it depends, obviously, on the particular circumstances. He said, in some cases in some of the past presentations, it sounds like at least part of it is the HOA responsibility,

probably under their initial stormwater management agreement. He said, obviously, one size does not fit all. Mr. Baker clarified, in the Pratt Road case, there is more to it than the homeowners not maintaining their ditches. He said these projects would dramatically change some of the original designs of their approved plans because, again, due to the age when they were originally approved, they built to the standards. He said, again, the County got more water in July than 49 other States in the Country. Mr. Kilmer said, to John's point with Hunter's Mill, the flooding is not really affecting the homeowners in that development, but it is affecting the people next to them, so it is going to be hard to get buy-in from the people there. He said they are having problems with other people throughout the County, and it is definitely a touchy situation on how to get HOAs to pay, and these huge costs are definitely not in the budget of Hunter's Mill, or really any other HOA. He said it is something that is a tough nut to crack.

Mr. Joe Holloway said, in reference to Mr. Cannon's comment, he would like to talk about the public drainage ditch associations (PDA), or tax ditches. He said Mr. Baker visited the site with him at Walston Switch, and it was pretty obvious that the ditch on the upstream side of Walston Switch Road needed cleaning out because they saw that it was filled in. He said he had a question posed to him twice by a gentleman who brought these problems to the County, and was not getting any reaction from the PDA. He then asked what control the County has over the PDAs and the work they do. He said he knows they tax the citizens and put it into a fund. He then asked, if they do not use that money to keep things up, where does the County fall into that equation to make sure the work gets done, to which Mr. Baker responded, he would suggest holding that question for next month because on October 16th he will come back before Council with the Maryland Department of Agriculture, who oversees the Tax Ditch Association. He said they are going to be giving a presentation to Council about how tax ditches are established, what the process is, how to get new ones, and how to maintain the existing ones, and he thinks they would be better suited to answer that question. He said the short answer is that he can find out, but he would probably be finding out from them. Mr. Joe Holloway said that question was asked of him, and he was asked to ask about it, so he may try to have that person at that particular Council meeting so he will get a better understanding of it too. He said he is not saying the Tax Ditch Association in this case is not doing their job, but maybe they do not recognize what needs to be done quite as much as this person who is having the problems does. He clarified, that will be on October 16th, to which Mr. Baker responded, yes, they will be here on October 16th for a presentation. Mr. Dodd asked if they were the same people he met with on Mt. Hermon Road, to which Mr. Baker responded, no, that was the State Highway Administration. He said this is the Maryland Department of Agriculture, the folks off Nanticoke Road, who will be coming out and giving the presentation.

Mr. Baker said, again, they talked about enlarging Hunter's Mill stormwater pond, and making some revisions to the outfall altering the drainage paths so it does not discharge onto Pratt Road but instead, basically, bypasses Pratt Road, and then comes in on the backside behind the houses that are flooded, and ties into the swale connecting Pratt to Pemberton. He said the design cost is \$6,500, and the construction estimate is \$134,000.

Mr. Baker said the third project is Hounds Bay Circle. He said there are some ditches that feed into the Hunter's Mill pond that are currently concrete lined, and they believe they can take those concrete liners out, which will enable the ground to absorb some of that stormwater before it gets to the pond thereby starting to mitigate some of the stormwater, reduce what is going into the pond, and reduce the flooding downstream.

Mr. Baker said the other three recommended projects include reestablishing the ditch between Pemberton and Pratt. He said, in the previous slide, Council saw where there would be a new

connection coming in behind the houses, and they would need to revise the grading of the Pemberton ditch to accept flow from the new ditch that was coming in from behind the houses. He said some of this work could potentially be done through in-house forces. He said cleaning up ditches is something Public Works is more than capable of doing, but they just need to know what grades the revised profile would need to be. Mr. Dodd asked, once Public Works does that work, who would maintain it afterwards, to which Mr. Baker responded, currently, Public Works maintains this ditch. He said even though there is no County easement for it, they maintain the ditch, and it is just something they do for the citizens in the area. Mr. Dodd said that should help.

Mr. Baker said another proposed project is an additional pipe underneath Pemberton Drive connecting from that ditch to the swale on Royal Mile, and they will have to go at a circuitous route around the existing structure in front of West Nithsdale. He said, depending on workloads at the time, this project also could, potentially, be handled in-house for construction, but it is a significant project, so to do this in-house would probably take about a month or so.

Mr. Baker said the last project is the Nithsdale ditch reestablishment. He said Council may remember there was significant erosion caused by the August 2017 storm when all that water from the area he just showed flowed into the ditch running through West Nithsdale and into the river, causing about a 6-foot deep channel to get eroded through. He said, again, that construction cost is a little over \$50,000.

Mr. Baker said one thing he would like to point out is that these projects need to be thought about in terms of staging their construction, and the improvements need to work in a downstream to upstream process because they do not want to start dumping more water on the folks in Nithsdale until they have improved that system so they can handle it. He said, otherwise, they will cause further damage. He said, with that being said, a couple of these projects can be done without that impact. Mr. Cannon asked, on the Pemberton ditch reestablishment, is there anything in the Code stating that people who have a ditch in front of their house in the County are responsible for keeping that ditch in good condition, to which Mr. Baker responded, for the Nithsdale ditch, that is all in the Nithsdale HOA. Mr. Cannon said, with Pemberton, it looks to him as if Mr. Baker is saying the County is going to spend \$50,000 to clean out ditches the homeowners should be cleaning out if that is their responsibility, but he does not know if it is. He clarified, that is why he is asking if there is anything in the books that literally says, if someone owns a house with a ditch, it is their responsibility to keep that ditch clean, to which Mr. Joe Holloway responded, they would run into all kinds of problems there because sometimes environmentally they are not allowed to clean ditches out. Mr. Cannon said he thought they were going to try over the next year to work through finding out who is responsible, and he knows MDE and DNR are involved. Mr. Joe Holloway said that is the problem, and lifting leaves out of the bottom may be okay, but, if they get a scoop full of dirt, they may be in trouble, so that is where they run into problems. Mr. Baker said, in this case, specifically, one of the challenges is that this is more than just a shovel and rake job, but a Gradall and excavator job. He said it goes even beyond that where they are transporting it from Pratt Road to Pemberton, and, realistically, there are only five houses that back up onto that ditch, so which HOA or property owner would be responsible. Mr. Cannon said the reason he asks is, going down Pratt Road, he sees ditches in front of houses that are in immaculate condition, but it appears to him at first glance that Mr. Baker is suggesting that even though those people went to the trouble to maintain their ditch, the County is going to take care of everybody else's when they possibly should have done it themselves. He clarified, he has no idea whether it is established in any type of Code in Wicomico County whether that responsibility is incumbent upon those people, or whether the County is responsible for it. He said that is what he was hoping Mr. Baker was going to sort out with this whole issue. Mr. Kilmer said this ditch in particular is a big ditch, and really more like a creek. He said these are not ditches in front of houses, but

a big one, to which Mr. Baker added, if he were to stand in it, it would come up to his head. Mr. Kilmer said he thinks it is more of a County responsibility, but with ditches in front of houses he thinks that is where Mr. Cannon is correct. He said some ditches look great, but some people dump their leaves in, to which Mr. Cannon responded, he understands, but he thought this ditch was something else. Mr. Kilmer said this is where they all collect and run north to south, he believes, by the side of those houses where the culvert was taken. He said, regarding the ditches in front of houses, Mr. Cannon is correct, and they need to figure out who is responsible, to which Mr. Baker responded, generally, if the ditch is in the County's right of way, the County maintains it. He said there are some ditches outside of the County's right of way that are expected to be maintained by the property owners, or the HOA as the case may be. He said there are numerous ditches in the County that drain to roads that do not belong to the County, and they look to the property owners to maintain them. Mr. Dodd asked, since Mr. Baker mentioned they are expected to be maintained, who monitors, patrols, and enforces these ditch cleanups, to which Mr. Baker responded, there is not anyone. He explained, they do not have a force that goes out and proactively inspects. He said they have a stormwater management inspector, but he is out inspecting ponds, not walking through the woods behind someone's house asking if the ditch is being maintained. He said, typically, the County does not go out and look at them until a problem arises. Mr. Dodd asked if that is something the County should be proactive about instead of waiting for a problem, to which Mr. Baker responded, in an ideal world, yes. Mr. Joe Holloway said that would mean a Code Enforcement Officer, to which Mr. Dodd responded, it would fall back on the County.

Mr. Wayne Strausburg, Director of Administration, then came before Council, and said he thinks they had this discussion at the outset of this whole study. He said he is not aware of any authority the County has to enter private property and do any work. He said Council will recall, going back to the PDAs, they had the same discussion. He said, for instance, in Nutters Crossing, if they were not maintaining the stormwater management systems on the golf course, the County has no right to go onto the golf course and tell them they are not maintaining it properly so the County is going to come in and do it. He said, if they are contemplating those sort of activities, he thinks they have to determine how they get the legal authority to do that, and then how they would fund it so they have people with expertise doing it. Mr. Cannon said, since Mr. Strausburg brought up Nutters Crossing, there was a point in time where he actually met with someone from the County, and they walked through all of the common areas that were the responsibility of the HOA, and he literally said that certain trees needed to be cut down, and certain ditches needed to be cleared, but where that might have gone after that threat, he has no idea, so they just did what was supposed to be done. Mr. Strausburg said he will investigate that, but he is not aware of anything that is codified, to which Mr. Taylor responded, he is aware of two situations, but he is not aware of anything that is codified either. He said he will use the example of a plain County road that has a drainage ditch along it to drain off the road. He said, normally, the private property owner adjacent to it would not be responsible for that ditch, even if it happens to be on their property. Mr. Cannon said that is what they are trying to establish. Mr. Taylor said, if a homeowner put in a ditch for some other purpose, or if it is draining into a ditch the County is responsible for and somehow affecting it there or downstream, that might be a different matter. He said the other aspect of this is that they have stormwater management agreements, which may be the case with the golf course, though he is not at all familiar with that case. He said most subdivisions that were created in the past 35 years probably have a stormwater management agreement, and what that covers is up to that particular agreement done at that time. He said that is a broad overview, but he thinks, generally, a drainage ditch along a County road is the County's responsibility unless there is an agreement that it will be maintained by somebody other than the County. Mr. Cannon said whether a ditch is on the road or between two homeowners' properties, it is good to know who is responsible. Mr. Taylor said, in some of the newer subdivisions, there might, possibly, be ditches along the road that are under stormwater management

agreements. Mr. Cannon asked if that is where West Nithsdale falls, to which Mr. Baker responded, he would guarantee they have a stormwater management agreement, but, again, that is for looking at their pond and their internal drainage structure. He explained, the HOA is responsible for maintaining the swales, but when they get to these level of storms doing this kind of damage, Council can see the price tag, and a lot of them are not capable of that. Mr. Dodd said that is what concerns him.

Mr. Strausburg said there really are two different issues, and one is whether they could go back and look at the subdivision and development documents for West Nithsdale and ask what the stipulations were and whether they are being abided by. He said, secondarily, however, if the engineering is not sufficient to handle today's rainfall and storms, the County has to have some sort of authority to say they have to go back and have it reengineered, and construct different apparatus to handle the stormwater, which means they are entering and disturbing private property. He said that can get fairly interesting, he thinks, from a legal standpoint, but he does not have any foundation. Mr. Dodd said, if they stand back and do nothing, they will hear from private citizens that the County is not doing anything, to which Mr. Strausburg responded, he does not disagree with that. Mr. Baker said, on the other hand, if the ditch in Nithsdale was the first project, applied for grants, and have designs ready, but the HOA says no, at that point the County has done what they can to try and help them. He said they asked for help, but if they are not letting the County on the property to do the work, that is on them. Mr. Dodd said, if it affects another development or a different property, that is where the problem is, to which Mr. Strausburg responded, unfortunately, if it is for the public good, that is where they begin to tiptoe into eminent domain. Mr. Kilmer said Mr. Baker could explain they are starting downstream, and if the homeowner does not let them do it, they will move upstream, and then there will be more water. He said the HOAs recognize these problems, but they do not have the resources to deal with it, so he does not think there is a lack of will, but it is such an overwhelming problem. He said Barrington Ridge is another one that needs to figure out how to deal with the problem and whether there is any help from the County, and the County has to figure out what extent they want to be involved with things that are spilling out into the wider public. He said it is not just the HOAs, but it is how it affects the drainage a couple miles away. He said he does not know if there is an easy answer, but they need to talk about it. Mr. Strausburg said, to an earlier point, they will be investigating what State and Federal funds are available to underwrite this kind of work because they are not the only State or County in the Country being damaged by these very unusual weather patterns, which are forecast to continue. He said at some point in time the various levels of Government have to understand that citizens who are being impacted do not have the wherewithal to pay for this out of their household income, so they have to figure out how the County can afford to fund this, which he does not know, but they should certainly look into this vigorously.

Mr. Joe Holloway said they have talked about making people keep their ditches clean. He said, when they run into rain events like they have had in the past couple of years, if someone is upstream from a property that water travels through and they have an excessive rain event, this person upstream could say their water is not draining because of the other property. He said that person's ditch may be fine, but then because of the amount of rain, it could then fall back on this person downstream to make sure the person who owns the property upstream has proper drainage. He said they are getting into a whole lot of problems here that may never be solved, especially in the rural areas and farmland. He said he knows they have, basically, been talking about developments, but this should also apply to talking about large tracks of land.

Mr. Cannon said, regarding the West Nithsdale redevelopment, he went into that neighborhood during the last storm they had, and it is kind of interesting because the water seems to die out. He said, even though the water was coming over Pemberton, they had to put the riprap in there to protect it like

when they had the problem with the boat clogging up the culvert. He said, in the ditch next to it, Mr. Lee Outten was in there pulling stuff out, and all this water was coming to this general area. He said, when he got two-thirds of the way down to where it is eventually supposed to funnel to, it was almost as if it just died out. He said he thought maybe because of the way the water structure is, or the clay structure underneath that, the water just decided not to go as far as it needed to. He said there is a really wide ditch the full length of the entrance of West Nithsdale, and he is not even sure he can call it a ditch because it is huge, but it was taking the water quite sufficiently, to which Mr. Baker responded, that is an example where they have a ditch and culvert system that was designed to handle more than just a 10-year storm, and it has the capacity to handle it.

Mr. Cannon then asked, in this ditch reestablishment Mr. Baker is referring to, is he talking about directing more of the water to that particular area so they can get some relief, to which Mr. Baker responded, the ditch reestablishment is not for the swale that is running down the middle of Royal Mile, but for what is running behind the houses where it eventually works its way into the river. Mr. Cannon said he knows where that is because he saw it. Mr. Baker said that is what they are talking about. He said it is huge, as Council can see the drop off in the picture. He said this is another example where he can stand in it and it is over his head, and that needs to get fixed.

Mr. Baker referred to a picture showing somebody's property and said this gentleman's playground equipment is five feet from the edge of this, and it was not there before the August storm. He said, if the County does all of these upstream improvement projects and sends more water down, this homeowner is going to continue to experience more and more land loss, and more and more damage. He said that is why he wanted to highlight the point that, when they start approaching these projects, they need to start in the downstream area. He said there are a couple upstream where, for example, if they go in and increase the size of the Hunters Mill stormwater pond, that is just going to reduce the amount of water going to them because it is going to store it, so there are some projects they can do upstream that are not going to send more water down. He said ripping out that concrete liner to let the water infiltrate into the ground is going to reduce the water going downstream. He said there are some cases like that, but he would not advocate, for instance, installing another 30-inch pipe under Pemberton until they have fixed the swale behind this gentleman's house so that it could accept that water and not tear apart the land. He said that is all just the engineering side of this.

Mr. Dodd asked what Mr. Baker will do to prevent erosion once they take up the concrete, and if they will put down vegetation, to which Mr. Baker responded, yes, and it would be regraded at a proper slope. He said a lot of those concrete-lined areas are, basically, almost a flat slope, and they have been silted in over the years from not being maintained, so they would rip the concrete liner out, put a proper slope on it so the water is getting to Hunters Mill, and water would then infiltrate into the ground on its way to the stormwater pond. He said the stormwater pond would be bigger, and, therefore, holding back more water so it is not overtopping Pemberton Drive on a 5-year storm, and, again, making these improvements.

Mr. Joe Holloway asked if the concrete liners would have been put in there for the purpose of eliminating erosion to keep further maintenance over the long-term, to which Mr. Baker responded, sort of, and he will say that in the sense that the slopes in those particular swales are almost flat, so they were not put in for an erosion purpose. He said sometimes liners are used for erosion, but, in the case of these particular swales, again, they are flat, and the water is not moving very fast. He said a lot of times what they saw back in the 1980s, and even in the early 1990s, was that the concrete liners were put in just for ease of maintenance. He said they knew where to stop digging with the shovel because they hit

concrete, and would just scrape everything out, and clean it out nice and easy. He said, over the years of not being maintained, they ended up with six to eight inches of silt on top of a concrete liner that has grass growing out of it, and is not doing what it was intended to do. He said not only is it not being maintained, it is not infiltrating into the ground. Mr. Matt Holloway said there was also a change in velocity in stormwater management. He said back with the concrete, they wanted to get the water off site as quickly as possible, but now they want infiltration, so they got rid of the concrete and want it to soak in and not just discharge it for nutrient management. Mr. Strausburg said concrete speeds up the flow of the water, which is counter to what all the professionals are doing now.

Mr. Matt Holloway said he has a question about the stormwater pond enlargement. He then asked, if they do any more of those around the County, would there be potential to use some of the spoil from that for landfill coverage purposes, to which Mr. Baker responded, yes, potentially. He said he would think, if the County is facilitating this, they will use the dirt. He said it may be that the dirt that comes out of that pond will go in to reestablish this swale, so there are potential repurposing opportunities. Mr. Matt Holloway said it may just be an incentive to do some of the work themselves if they can reuse the soil, to which Mr. Baker responded, he has a whole pile of dredge material he can dump in there.

Mr. Baker said the total cost is included in the report, so he broke it down into manageable chunks. He said, again, internally, the thought was not to do everything at once because that price tag is pretty big. Mr. Matt Holloway asked if that price tag is for the County doing the work, to which Mr. Baker responded, no, it is for contracting it out. Mr. Matt Holloway said the County could probably do some of the projects cheaper, to which Mr. Baker responded, there are some things he thinks they can handle in house, but he will say not everything. He said the total cost from the construction side is \$648,000, and the engineering cost is \$39,000, so they are talking about almost \$700,000 worth, and, again, he is not proposing to do all of it at once. He said they will be submitting for grants and things like that, and asking people's permission to go on properties.

Mr. Baker said the next project he wants to talk about is the Coty Cox Branch. He said they completed the survey of all of the pipe crossings from the Billie Jean Jackson Park to West Road. He said the green marks are the indications where the pipes were sloped in the correct direction. He said everything north of the blue line is the County, and south of the blue line is the City. He said the yellow line is a pipe they had that is on a flat grade, which is not really good, but also is not bad. He said there is one pipe in that system right next to the yellow one that is sloped the wrong direction, so they will be fixing that. He said, downstream, the pipes in the system in the City are sloped in the wrong direction. He said of particular concern is that at Rose Street they have an elevation leaving their pipe at 8.49, and everything downstream of that should be lower, but instead, when they get to West Road, it is almost 1 foot 4 inches higher, so there is a significant amount of water ponding up behind West Road that backs up further into the system. Mr. Davis asked if that is in the City, to which Mr. Baker responded, yes, that is in the City. He said he has communicated this information to the City's Department of Infrastructure and Development to make them aware of it, and he has a meeting with them tomorrow to follow up.

Mr. Baker said the first red line on the diagram is south into the City behind the apartment complex near Campbell's Soup, which could, potentially, be taken out. He said it is an old gravel driveway, and he is not sure what they are using it for, but there are three pipes in there they could, potentially, just take out, and that would be an easy fix. He said the City just spent a lot of money going across West Road, and he is not sure if there is an easy fix for that elevation. He said, in the meantime, they are also still looking for ways to get their equipment back behind Coty Cox to get it cleaned out. He said they thought they had found an easement for an old alley that was running along Coty Cox, but, unfortunately, it

disappeared in future plots when it got developed out there. He said the problem is the size of their equipment versus all of the sheds and fences out there. He said the mini excavator can get in so far, but the challenge with using it in some of these locations is that they take a scoop and then go back to the street and dump it off, and then go back and scoop, and they spend more time running it back and forth, which keys into the environmental regulations. He said, if they could just scoop it and drop it on the embankment and open that drainage pathway up, things would be a lot simpler and easier. He said, again, they are still moving forward trying to improve drainage on Coty Cox.

Mr. Baker said he wanted to talk about the Twelve Oaks study they have been working on. He said Twelve Oaks is a subdivision off of Crooked Oak Lane that drains across a piece of property that is a horse farm right now. He said it floods Twelve Oaks and Crooked Oak. He said the red line seen in the picture on the left is the pathway of a terracotta pipe that was installed by a previous property owner that used to be a ditch and the natural drainage pathway for the area. He said the previous owner put in a pipe, buried it, and went about his business. He said, since then, they can see the middle picture is actually where that pipe terminates, which is just short of the trees on the northern part of the picture on the left. He said it is something they have been working on, and they are trying to figure out what the issues are. He said they know this intersection in this area floods, and this is part of their drainage investigation for getting that area back open and draining better.

Mr. Baker said another area they are working on is drainage out of Cedarhurst Park, for which he has had communication with Mr. Steve Miller. He said these pictures were taken on June 3rd, which was a large storm, but it was not one of the 500-year storms they have seen. He said these folks are getting flooding on a more regular basis, and a lot of the flow is coming out of Cedarhurst Park and headed south onto Talus Drive, and then working its way through their drainage system. He said they are proposing to construct a swale, which is the red line seen on the right, to intersect that water before it leaves the park, and tie it into an existing drainage swale which bypasses all of the homes and works its way into their stormwater management system. He said, in talking with Mr. Miller, he indicated he thought they could be doing the work coming up in October.

Mr. Baker said Council just passed the Resolution for the Consolidated Transportation Program letter, which included a drainage study for the Nanticoke Road corridor, and the picture on the left shows all the spots where they have had concerned citizen input for concerns with drainage starting back from August. He said, with every storm the County gets, they add in new data points to start populating where these areas are, so the different shapes on that map represent different storm events they have had, and where they have received drainage calls. He said they also are highlighting the hotspots at Willow Creek, which is seen on the upper side of the picture, and what Nanticoke Road looks like when it floods at Willow Creek, and then also at Catchpenny Road, which is seen in the bottom right picture. He said they are also working with State Highway to improve the flow through Peggy Neck Branch, which is responsible for picking up a lot of the drainage off of Old Ocean City Road. He said right at the Bypass where Peggy Neck goes underneath it, which is by the railroad tracks just south of Perdue on Zion Church Road, there is a lot of erosion working its way off the banks of the Bypass into Peggy Neck Branch. He said State Highway has already been out there once and cleaned it off. He said they have pulled back what they can, but, unfortunately, it is still just kind of sitting there, and they are one to two storms away from seeing that sediment wind up back in Peggy Neck Branch, which is why they are looking at something a little more permanent than just a temporary cleaning, but some way for them to stabilize those soils and keep that dirt out of Peggy Neck.

Mr. Baker said he will talk about drainage construction next, which is the project for which they have been out moving dirt. He said the big one has been the improvements on Pemberton Drive at Anderson Mill Pond. He said Council may remember that on May 18th the County had a significant storm event. Referring to his slide, he said the little crumpled up piece of yellow in the bottom picture is a two-person paddle boat that got stuck in the outfall pipe causing significant damage to it and backing up the water, to which they can see in the other picture. Mr. Dodd asked where it came from, to which Mr. Baker responded, it was on the embankment of a private residence. Mr. Strausburg said, apparently, it was not tethered, to which Mr. Baker added, in fact, the owner of the pond said he specifically talked to the folks and told them to get it out of his pond because he did not want it there. He said the people just pulled it up a few feet away, the water level rose, and then the County is left cleaning up the mess. Mr. Dodd asked if there is any responsibility there, to which Mr. Baker responded, that is a good question.

Mr. Davis asked Mr. Baker to tell Council what was clogging up Coty Cox Creek, to which Mr. Baker responded, when the surveyors went out to Coty Cox to do their surveying, at the little gravel driveway he was speaking of earlier, there are two pipes on top and one pipe on the bottom. He said the surveyors were trying to dig around and get the invert shot of the bottom pipe, but they could not seem to get it, so they got down there with their shovels and popped out a dead turtle. He said there was some drainage obstruction, but there was a dead turtle in there preventing some flow getting through.

Mr. Baker said, from July 23rd to August 1st, they were working on Pemberton Drive at Anderson Mill Pond, so that work is all tidied up. He said they will be repaving that section of the road this fall when the paving contractors come back in. Mr. Cannon asked if that is very old, to which Mr. Baker responded, no. He said, in fact, if it were not for the damage from construction, it would not have been on the paving schedule.

Mr. Baker said they have been doing some ditch cleaning on Head of Creek Road, and referred to the three pictures on the left. He said the picture the furthest to the left is what it looked like before they ditched, and the middle picture shows that there was, in fact, a pipe there that had been sedimented in and leaves had built up, so they got that cleaned out and then just continued that ditch down the road to get positive drainage out of that area and heading towards an outfall. He said the three pictures on the right show the work they have been doing on Bent Pine Road. He said the upper picture is, actually, from the May 18th storm at another location where they saw damage, so they went in and replaced those. He said there was one pipe there, and they added an additional pipe. He explained, whenever they have these opportunities to replace a pipe, they make sure they are increasing capacity to get these flows moving through the area.

Mr. Baker referred to another picture, and said this is a little bit before the Twelve Oaks property on Crooked Oak Lane at Rockawalkin Creek. He said they replaced that pipe because it was old and damaged, and there was a dip forming in the road, so they got out there and replaced that as well.

Mr. Baker said his next slide talks about the Citizen Assistance Grant he was telling Council about. He explained, Maryland Emergency Management Agency (MEMA) has hazard mitigation grants available to homeowners to help share the cost of raising up their home. He said one of the biggest challenges they have found with helping folks in the community is what to do for the person who has built their house in a localized area where there is no outfall in the area, no storm drain in the area, and the water has no place to go. He said MEMA has these grants available that citizens can apply for to raise their houses, and that is some of what they have been recommending. Mr. Joe Holloway said, with the storms in North Carolina, he suspects there are some people around here who would consider that. He said his

wife asked him whether they have flood insurance, and he said no, but, if he had 30 inches of rain, he would be flooded where he lives. He said that would be unusual, but it could happen. Mr. Baker said the nice thing about these grants is one does not have to be within a floodplain to qualify. He said there are several criteria that have to be met, and one of them is a cost-benefit analysis, but, if the project is less than \$175,000, it automatically meets that cost-benefit. He said \$175,000 goes a long way towards raising a house, and there is a 75/25 percent split. He said the contact person locally is, actually, in the Planning and Zoning Department, Marilyn Williams, and he has been working with her. He said the Federal Government just released more money to MEMA for this grant program, and one of the things they are looking for is community-based improvements. He clarified, there is still money available to raise individual houses, but the State is pushing what can be done systemically to help the most amount of people, which is why he thinks this would be a good place to start for the Pratt Road improvements to get in there and help with the flooding, and potentially, also with Coty Cox. Mr. Dodd asked if Mr. Baker knows whether anybody in Wicomico County has taken advantage of this, to which Mr. Baker responded, he has directed several folks to Ms. Williams. He said he knows one person was more interested in raising their out structure, but this is really for primary residences. He said, if someone wants to raise a garage apartment, that would not really qualify. Mr. Dodd said he saw that a lot of houses have been going up higher in Somerset County and Accomack County right after Hurricane Sandy.

Mr. Cannon asked Mr. Baker what he will review with Council the next time he comes before them, to which Mr. Baker responded, he is looking at the next drainage study that he thinks they need to be working on, which is Levin Dashiell Road. He said that floods significantly, and is an area that does not have a clear, easy drainage path. He said they know where they want to send it, but it is a matter of it being a long haul. He said, eventually, Levin Dashiell should be draining into Mitchell Pond, but it is a long way from that, so they need to find a cost-effective way to address drainage out there.

Mr. Dodd asked about Mt. Hermon Road, to which Mr. Baker responded, Mt. Hermon is another one, but that is really in the State system, so it is one of those locations they continue to remind the State about. He said, when the State asks what their number one priority is, he generally will tell them Peggy Neck until that gets addressed because they would be getting the most bang for their buck with helping folks in that area. He said Levin Dashiell is the next one, and he would like to see where they are at in the application process for some of these projects with moving through the MEMA grants. He said, again, they are always working on drainage. He said this month or early next month they plan to install new ditches on Fawn Drive. He said they had a project to get surveys of several hotspots to determine how to drain them because they were not draining. He said Fawn Drive, which is off Old Ocean City Road, drains into Peggy Neck, and that is on their immediate radar as far as new ditch construction.

Mr. Cannon said, on behalf of Council, thank you very much for the presentation. He said Mr. Baker is dealing with Public Works as a whole, and he has day to day operations to attend to, and this sort of fell right in his lap out of nowhere. He said it could appear to be insurmountable, but he thinks what Mr. Baker is bringing to Council on a regular basis is great as far as the success they are making as a County to resolve these issues, and he is pleased with it.

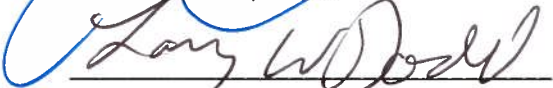
Mr. Cannon said the question he has for Mr. Strausburg is where he thinks they will be filling in the blanks budget-wise. He said they are a little bit out from that right now, but it looks like they will have to direct funding somewhere, to which Mr. Strausburg responded, they are going to be starting to build the Capital Improvement Budget and Program (CIP) in another 30 days. He said, to Mr. Dodd's earlier point, while they do not know how this is ultimately going to be funded, they have determined, for instance at

Pratt Road, what the issues are, so he thinks it would be incumbent upon them to embed in the CIP the projects they have their hands around what needs to be done. He said, even if they are forward funding and they think there is a way to get a matching grant, he does not think they should sit on their hands until they know where they can get the money. He said they have fund balance they can use to forward fund, and he thinks the challenge is to find ways where they could forward fund without comprising their ability to get matching grant funding. He said they will probably work pretty hard on looking at those sources of funds before they bring Council the CIP, but he would think it is incumbent upon the County to have these kinds of projects where they know what has to be done in this coming CIP cycle because they have residents who are being damaged.


Mr. Joe Holloway said the County has caught a lot of grief in the past year or so, especially about the reserves the County has, but he bets that a lot of Counties in North and South Carolina wish they had Wicomico County's reserve fund because they are going to need it, and that is one of the reasons why Wicomico County keeps a reserve fund. Mr. Strausburg said it is nice to be in a position where, if they have to forward fund, they have the funds there to do that. He said Mr. Joe Holloway is correct, and there was a river in North Carolina that crested at 15 feet above the normal flood stage. He said imagine the Wicomico River at 15 feet above normal flood stage. Mr. Joe Holloway said they have caught a lot of grief from some people about keeping these reserves, but this is one of the reasons they have it. There was no further discussion.




John T. Cannon, President



Larry W. Dodd, Vice President, District 3




Ernest F. Davis, District 1



Marc Kilmer, District 2

absent

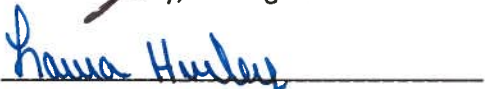
John B. Hall, District 4



Joe Holloway, District 5



Matt Holloway, At-Large



Laura Hurley, Council Administrator