

**Watershed Implementation Planning
Open Work Session
December 15, 2015**

Mr. Weston Young, Director of Public Works, Mr. Matt Hedger, Civil Engineer II, and Mr. Keith Hall, Chief of Land Use and Transportation Planning, came before Council. Mr. Matt Hedger said in 2010, after decades of efforts of trying to restore the Chesapeake Bay, the United States Environmental Protection Agency established pollution load limits to restrict nitrogen, phosphorus and sediments from entering the bay. All of the states within the Chesapeake Bay Watershed were affected by this. All of Maryland's 23 counties and Baltimore City were instructed to prepare Watershed Implementation Plans with a final implementation target date of 2025. The targets established for the County do not include the City of Salisbury as the City of Salisbury already regulates stormwater management, and the State has set a separate nutrient target for that jurisdiction. One of the sectors is urban, which is being taken care of by stormwater retrofits and other associated projects. There is also a septic system sector that will be achieved through pump outs, upgrading existing septic systems to denitrification systems or pretreatment and connection to a public or community system. Another sector is wastewater treatment plants, which is the responsibility of the individual municipalities to upgrade their plants to enhance nutrient reduction. To date, Delmar as well as Fruitland have already met their goals. Agriculture is also another sector but it is coordinated more by the State; they are expected to meet their goals by 2025. The County will concentrate mostly on the urban and septic system sectors to meet our goals, as well as projects focusing on agriculture as well. Mr. Hedger continued, he said beginning in FY14, the County budgeted \$200,000 per year as part of the Capital Improvement Budget of which the County, with technical assistance and support from our WIP partners, have leveraged an additional \$651,053 from the State and non-profit organizations to assist with reducing nutrients and sediments from entering our local waterways. Mr. Hedger continued, he said grant funding is being used to help with the cost of design and implementation of 18 stormwater retrofits projects underway in the County. The purpose of the stormwater retrofits selection criteria is to select projects to maintain pre-existing facilities with cost saving measures, design to maximize opportunities for public education outreach, to reduce costs by utilizing publically owned land, select practices that will reduce long term maintenance costs, and to improve the appearance of our existing facilities. Phase I projects, which we have now, consist of eight practices with six highly viable publicly owned properties. The projects are fully funded by Chesapeake Bay Trust Grants and County funds. The construction is also fully funded by DNR grants. One of the projects is at the Upper Ferry, which was completed in 2014, and is a bioretention pond that will slow down the water runoff going into the Wicomico River and reduce the sediment load. The plantings will absorb and reduce the nutrients from entering into the Wicomico River. Mr. Young said if you look at a new development, they have ponds or some sort of stormwater treatment. The road leading to Upper Ferry, we call that impervious surface, it runs off directly into the river. By putting in the bioretention, the water can then go into the bioretention pond and slowly infiltrate down. The plants are selected to help pull pollutants out of the water. It is not just nitrogen and phosphorus, it is also the heavy metals and other contaminants. The plants do serve a role. Mr. Young explained that many of the practices are very similar in nature, they take an impervious surface and capture it; we

say stormwater retrofit. Sometimes we take an existing practice such as the one at the airport that is an older stormwater structure, and we are improving it to have a higher removal efficiency. Mr. Matt Hedger said the Pemberton Park project is very similar, it has two practices, a bioretention pond and a bioswale. It also has a forebay which the water will enter before even going into the bioretention pond. The bioswale is very similar, it just incorporates a swale as well. Another project is the Airport Pond-Sand Filter that has been awarded a construction bid and will be underway shortly pending the weather. Mr. Young said we already have the infrastructure draining to this location. One of the difficulties of being near an airport is we have to get FAA approval. We do not want any setup where wildfowl could land. It is also something to consider if we start implementation practices at schools. You do not want a 10 foot deep pond near an elementary school, but you could have a low impact rain guard bioretention that could also be an educational feature as well. The next project is at Schumaker Park and consists of two practices, one a bioretention and other is a similar practice. Another project is the Perdue Stadium-Dry Swale, which is a very large project that will do quite a bit of work for us. Continuing, Mr. Hedger said another project has been designed for a solid waste facility. Mr. Dodd asked if the runoff is tested, to which Mr. Young said the one at Solid Waste will be tested but, typically, no. Mr. Dodd then asked how do you know if it is working, to which Mr. Young said that is a great question, the way the bay program works right now, we are not under severe regulations. Salisbury has a phase II, phase I is for the bigger cities, they require testing stations to make sure the efforts are working. We, basically, go on design and the research that shows it works; does it actually work for us, is more of a paper game; how many acres of impervious do we have treated by different practices and based on that it is a land use game. Mr. Keith Hall said as part of the due diligence with spending public money and looking at use of prudence, as well as trying to make sure we are getting the best efficiency or return of investment, we are doing geotechnical work. The geotechnical work is not only looking at the soil profile, but also looking at the current nutrient load as well as the current phosphorus load. We know the load going into it and the projected results coming out of it. Mr. Hall said he thinks it is a good idea, if we continue to get County allocation as part of the Capital Improvement Program, to begin testing. We are currently just working with efficiency that a model is giving us that is one size fits all. Mr. Hall said, in fact, we might be getting a reduction in nutrients that the County is not taking credit for. Mr. Hall said there is some testing in the front end of it, but the results we have not tested. Mr. Kilmer clarified that the State's methods are based on inputs not outputs, to which Mr. Young said, yes, for right now, and it even goes beyond the State, it is the whole Chesapeake Bay Program, which is the six states, Washington DC, EPA, and all the partners that have a stake in it as well. Mr. Young said while it is a paper game, it is a good idea to install water quality testing gauges in the different water bodies. He said we would not put it in the ponds or bioretentions, but one would be in the Wicomico River, the Nanticoke River, the Pocomoke River, etc., helping to gauge what is coming from the river. Mr. Young said it is a paper game, the State will have certain criteria to submit to the Chesapeake Bay Program and then they put it in their model, then they determine if what we have proposed has done enough or where we need to go from there. The State's model could show that we are good, but their testing stations show that there are still impaired waters. We are still going to have some rivers or creeks that will still be impaired but others that are clean. Our goal right now is to show on paper and with pretty pictures that we are moving forward in an intelligent

way with treating pollutants in the County. Mr. Hedger said we have four Phase IA projects that are highly visible, they are the East Little League located at the Winterplace Park – Bioretention Pond/Swale; Detention Center-Shallow Wetland; Roads Division Yard Complex-Bioretention and the Wor-Wic Community College-Shallow Wetland. Mr. Hedger continued, he said some of the other projects the County will be looking at is the Wicomico County Tourism Center located on north Route 13. When fully designed, it will have five stormwater retrofit practices. This project is ready to move forward whenever construction bonds are available. Another project is located at the Salisbury-Ocean City: Wicomico Regional Airport and is to expand and improve an existing ditch located along Walston Switch Road located between Airport and Mt. Hermon Roads. Mr. Young said the San Domingo VFW involves demolishing an existing impervious area, about 3 quarters of an acre, and we are going to plant 3.5 acres of trees there. We plan to partner with various organizations. The Nanticoke Watershed Alliance is going to help us get volunteers. We have also been talking to the Sharptown Lions Club as well. This will help get good press for everyone and help our dollars go further. In speaking about grants, over the past three budget cycles, we have been given about \$600,000 and through the efforts of the County, we have doubled that with help from County staff and partners such as the Center for Watershed Protection. Mr. Young continued, going forward one of the things we are lacking is a comprehensive Watershed Management Plan. This is looking at a drainage area and determining where are the best places; we have many rural ditches in the County we can retrofit. He said he likes the idea of looking at some of our dams and ponds as we have a lot of drainage going to one location. You can put wetland benches in those areas. One of the things that is rarely talked about is the maintenance that goes into all these practices. Mr. Young said he would personally like to get away from some of these smaller practices, it is a great first step, but who is going to maintain them. Another thing to consider is Urban Service Districts. We have septic systems failing throughout the County. There are several ways to look at it, we can try pumping it out, we can go with the Best Available Technology (BAT), but those are pricy, and you need an additional drain field. Mr. Keith Hall said you have limitations with the older developments as houses are on very small lot sizes. They are not going to be able to do a full septic system replacement. A real long-term solution is looking at connecting them to some type of public or community system, whether it is partnering with another jurisdiction or the County exploring water and sewer treatment authority. Mr. Cannon said we could perhaps kill two birds with one stone if we develop our own wastewater treatment authority and have our own treatment facility. It could be a standalone facility in the community or a decentralized system where the County pumps and transfers it to the Public Works facility, asking Mr. Young which one does he think is the most feasible process. Mr. Young said he would have to look into it, as you cannot put a treatment plant just anywhere. There are considerations to consider such as if it is discharging to a body of water, is that okay; if we are doing some sort of field irrigation, then look at the soils, and that we are not above the paleochannel. If it is near a municipality that has existing services, then connect to those. Mr. Cannon said the municipalities would want annexation and with an annexation you have to have permission from the property owners, and they may not want to cooperate with that. Mr. Hall said the City of Salisbury's current policy as a function of service is annexation or a pre-annexation agreement. He said the extension of Urban Service Districts really has not occurred over the past 20 to 30 years, however, the cities and towns, especially the ones with the

larger wastewater treatment plants including Salisbury, Fruitland and Delmar, are under the same constraints as we are to reduce nitrogen and phosphorus. Mr. Hall said the question is, are there any potential partnerships that we can enter into between the County and the municipalities using the wastewater treatment plant and looking at different ways to fund infrastructure that will be a win-win situation for both. Mr. Hall continued, he said going back to Mr. Cannon's question when you are looking at a potential for regional water and sewer authority, you have to look at a variety of different factors, one being the proximity to existing city or town services, the other is looking at soils if you are not close to existing city or town services, soils that are capable of handling the spray irrigation or you have to find a local body of water to discharge in. Mr. Hall said what might work in one area may not be a one size fits all approach and it may be a hybrid. Mr. Cannon said we do recognize that we need the WIP credits and we need to make better use of it, as Mr. Young suggested we should be doing larger projects anyway. Mr. Cannon then asked for clarification on if they call it decentralization or centralization when they take it to another location, to which Mr. Young said he always refers to it as centralizing because you are pulling it from multiple locations to one central location. If, however, we are taking it to Salisbury's treatment plant, then we are decentralizing it. Mr. Young continued, he said we are always looking to expand partnerships as it helps the money go further. There has been some work with the Urban Tree Canopy for the County and we should be able to get some credit for it. It is similar to the San Domingo project, if we can find opportunities to expand or encourage that, it will help us with our water quality goals. One the best management practices is a land use conversion, taking from paved to trees. This is not feasible everywhere, so that is where Planning and Zoning comes in. Mr. Dodd said one of these days, Wicomico County is going to have to consider getting into the water and sewer business. Mr. Young said at the Chamber of Commerce meeting, someone mentioned to him we are the only County that does not have water and sewer authority. Mr. Cannon said if you talk to Somerset County, they might ask why do you want to get into it.

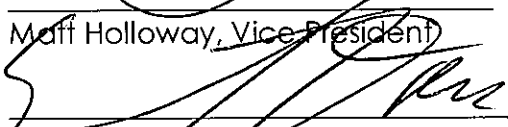
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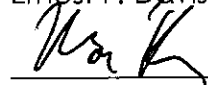


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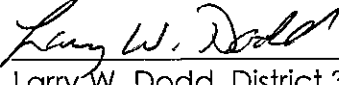
Matt Holloway, Vice President



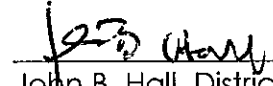
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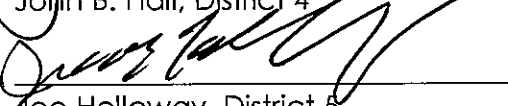
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