



down to earth

Environmental Restoration Quarterly • Fall 2019

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Piney Run Watershed Study

By Christopher Heyn, PE, Watershed Restoration Engineer

The Piney Run Reservoir is the focal point of Piney Run Park in Carroll County. Used by citizens throughout the summer for boating and fishing, the reservoir is also an important resource to the County for flood control and potentially a future water supply. What many don't realize is that the water is held back by a 74-foot-tall earthen dam, the largest dam owned by Carroll County. Due to the size of the dam and the risk if something were to happen to it, the dam is classified by the Maryland Department of the Environment (MDE) as a "High Hazard Dam." This means that extra precautions are taken by the County and MDE to ensure that it is inspected annually and well maintained.

With changes to the climate and some failures of dams nationwide, MDE is evaluating dams around the state and recently expressed concern that the Piney Run Dam may not meet current criteria. While it met all requirements in 1974 when it was constructed, some criteria like the design storm have changed. The current design storm for this dam is 27 inches of rain in 6 hours. While this size storm is unlikely, it is not impossible, and the County agrees with MDE's stance of prioritizing public safety.

(continued on page 2)



Piney Run Dam, under construction in 1974

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Protecting and managing Carroll County's natural resources for the pleasure and enjoyment of its Citizens



Piney Run Watershed Study (continued from Page 1)

To assist with analysis and potential modifications to the dam, Carroll County applied for a grant with the Natural Resources Conservation Service (NRCS); the organization that originally constructed the dam. The County was very fortunate to be approved for the program and the first phase provides \$500,000 for a study of the watershed.

The watershed study includes a comprehensive inspection of the dam, including a significant number of soil and rock borings to determine how susceptible the dam is to erosion. The study also includes hydraulic analysis of the dam under different storm scenarios to determine the related risk to people and property downstream. If the dam is determined to have deficiencies, options will be explored to address these issues. As these options may have an impact on the surrounding area, a National Environmental Policy Act (NEPA) analysis will be performed to determine what those impacts might be to the environment, people, and properties.

Assisting the County with the watershed study is AECOM, an international firm with resources specialized in dam engineering located in Germantown, MD. The watershed study is scheduled to take two years, which will include analyzing alternative solutions and discussing those alternatives in public meetings. At the conclusion of the study, the County will have clear direction on what, if any, improvements are necessary. The County can then apply for further assistance from NRCS to perform engineering design and ultimately construction of those improvements. MDE has requested that all work be completed by 2028 and this watershed study is the first big step in meeting that goal. Stay tuned for updates as we progress through this high-profile project.



Piney Run Dam, 2017



Piney Run Reservoir, 2017

Grant funding for this project provided by:



Stormwater Update

By Janet O'Meara, Watershed Management Coordinator

Elderwood—Construction is moving along in Eldersburg on the Elderwood SWM Basin #2/Oklahoma Phase IV Stormwater Management Facility. Work continues on the Elderwood facility where a temporary stream diversion was built to divert stream flow around the construction site while construction of a permanent diversion structure occurs. This structure will capture and convey stormwater through the new facility for treatment, while diverting stream baseflow through a pipe and into the downstream channel. This project received partial grant funding from the Maryland State Highway Administration Transportation Alternatives Program.



Elderwood

Roberts Mill—Construction is underway on the Roberts Mill Stormwater Management Facility in Taneytown. This facility is located off of O'Brien Avenue. W.F. Delauter & Son, Inc. have been onsite for several weeks working to install the necessary erosion and sediment control measures. Once the grading permit has been issued, the contractor will begin working to relocate an existing sewer line. As part of this project, a bridge will be installed to connect O'Brien Avenue. This work is being performed in conjunction with the City of Taneytown. Design costs were partially funded by a grant from the Maryland Department of the Environment, while a portion of the construction costs are being paid for by a grant from the Maryland Department of Natural Resources (DNR), Chesapeake and Atlantic Coastal Bays Trust Fund.

Partial grant funding provided by:



Shannon Run—Construction wrapped up in September on the Shannon Run Stormwater Management Facility located off Ashbrook Court in Sykesville. This project included the removal of several small water quality facilities and the installation of new storm drains to better convey drainage to the facility in a non-erosive manner. As part of construction, modifications were made to the riser structure with a new pipe being added to pull water from the bottom of the facility where it is cooler. This project received partial grant funding through the DNR Chesapeake and Atlantic Coastal Bays Trust Fund.



Roberts Mill

COMING SOON!

- Shiloh Middle School Stormwater Retrofit in Hampstead
- Langdon Stormwater Management Facility in Westminster
- Willow Pond Stormwater Retrofit in Westminster

Partial grant funding for the construction of Roberts Mill and Shannon Run provided by:



Bay Restoration Funds By Kelly Martin, Watershed Grants Technician

In January 2018, the Bureau of Resource Management submitted a grant application to the Maryland Water Quality Financing Administration Bay Restoration Fund Wastewater Program for construction funding for a program of stormwater management retrofit projects. After an application review/award process of approximately 18 months, the County was notified that it was awarded **\$2,475,000**. These funds equal approximately 50 percent of the cost to construct The Greens of Westminster in the City of Westminster;

East/West Pond in the Town of Mount Airy; Trevanion Terrace in the City of Taneytown; and Woodsyde Estates located in Eldersburg. These projects will address nutrient reduction requirements of the County's National Pollutant Discharge Elimination System Permit. These projects are in varying stages of design, and the County looks forward to working with the Maryland Department of the Environment in utilizing these monies for project implementation.

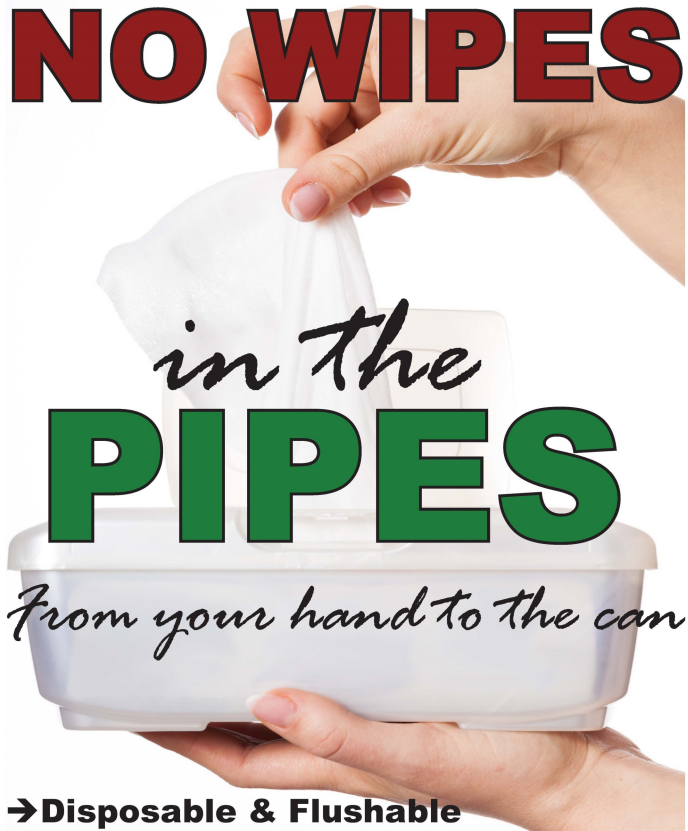


Maryland
Department of
the Environment

Information provided by the Carroll County Bureau of Utilities.

Visit their website at: <https://www.carrollcountymd.gov/government/directory/public-works/utilities/>

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→ Disposable & Flushable

Large American companies heavily promote bathroom wipes while other companies promote flushable feminine products and disposable sponges. Items such as antibacterial towelettes, cleansing cloths and feminine products are made for the convenience of Americans and are being used more and more.

→ What's the problem with Disposable & Flushable?

These items are made to be durable and don't break down like toilet paper does. They aren't as biodegradable as what they are deemed. What companies aren't telling you is the problems these so called "disposables and flushables" are causing in your sewer lines, our public sewer systems and wastewater treatment plants. While they may be small enough to go through the sewer pipes, they tend to stick together with grease and other solids already in the sewer system creating big balls of cloth that get stuck in the lines. These balls of cloth cause blockages in sewer pipes or end up in the wastewater treatment plants sewage pumps causing them to clog and create sewer backups.

→ Costly Repairs versus Convenience

Costly repairs to sewer lines or pumps due to damages caused by the wipes can run into the thousands of dollars and more. Municipalities can also be fined by MDE for sewage spills created by these avoidable blockages. Wastewater Treatment Plant Superintendents and operators alike are dealing with these problems more and more. Financial hardships throughout the country because of already deteriorating infrastructure, on top of repairs due to clogs, outweighs the cost of convenience. Not only does this cost each municipality but the repair costs are passed along to consumers with increased maintenance costs due to the problems. Even private septic systems can have problems. Septic systems may fill up faster and need to be pumped more frequently with less capacity for holding raw sewage due to the space taken up by the cloth debris.

→ Consumer Education

Consumers aren't aware of the problems these disposable items are creating. Public Works Departments all over the country have started campaigning to promote awareness through public media, schools, etc. to educate consumers about the dilemma.

→ What can consumers do to help?

▷ **Flushables!** Only flush toilet paper down the toilet.

▷ **Disposables!** Toss wipes, towelettes, cleansing cloths, etc. into trash receptacles where they belong.

▷ **Pass the word!** Inform neighbors, family and friends about the problems caused by disposing wipes, towelettes, cleansing cloths, etc. into the sewer system.

▷ **When in doubt, throw it out!** If you're not sure the item you're using should be disposed of in the toilet then throw it in the trash. Avoid the unnecessary expense of clogging the sewer system or having a private septic tank pumped more often than necessary.



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