

## Cedar Run Sub-Watershed Investigation (Saturday, February 2, 2008)

(Participating Stream Watch Committee Team members: Kit Valentine, Steve Schreiner, Cam MacLachlan, Teddy Betts and Betsy McMillion).

On Saturday, February 2, 2008, FPVHG stream team members conducted a reconnaissance of the stream along Cedar Run in Catonsville, Maryland. It should be noted that earlier that week there was significant amount of rainfall that had impacted the area, increasing the flow of water along the stream.

Cedar Run is one of the streams in the Patapsco Valley area under our stream watch program. Mike F., a long-time resident has signed up as a stream watcher for this stream. Mike F. has walked this entire stream and is a valuable resource, monitoring the condition of this stream and watershed. The Woodbridge Valley community presumably was built in the early-mid 1980s, pre-storm water management ponds. Prior to the development of the Woodbridge Valley community, Cedar Run was primarily a forested stream. The land development has added a great deal of impervious surfaces in which rainwater runs off into the storm drain system, which flows directly in the Cedar Branch. The water flowing into the stream has no controls to slow it down to reduce its velocity, increasing the erosion during storm events. There is an urgent need to reduce the amount of water coming off the communities.

According to Mike F.'s recent report, the headwaters of Cedar Run begin at two separate outfalls located near the vicinity of Woodbridge Elementary School, off Gibsonwood Road (ADC 33 A-12). The first outfall can be reached by taking a path in the back of Hunting Creek Court (off of Hickory Spring Circle (ADC Map 32 K-12). The second headwaters outfall can be reached via a path, which leads from Clifton Forge Circle (ADC Map 33 A-12). Mr. Fedner has indicated that the headwaters often dry up completely whenever there is a period without water runoff, with an exception of a few small pools. If there is no rain flowing into the storm drain system, there is no "natural" water source (i.e., natural springs). In the past residents have noticed piles of dead fish in this area that presumably died of suffocation due to the lack of water. The creek floods as quickly as it dries up.

Cedar Run continues to flow under Crosby Road (ADC Map 32 K-11).

One of the most significant areas of concern and trash found in the stream was located off of Johnnycake Road (ADC Map 32 K-11). This is a maintenance/storage facility we believe is owned by the Baltimore County Recreation & Parks. There was significant trash and debris found in and/or in close proximity of the stream, including: stack of tires, hundreds of steel drums, propane tanks, concrete blocks, cement curbing. In addition, dumpsters were also located in close proximity of the stream adding to the litter problem. Adjacent to this county site is also a facility where school buses are parked. Based on Mike Fedner's previous reports, this facility has been reported to the county as also a major contributor of trash into Cedar Run.

Our initial investigation began in the community of Ellicott Mills in Catonsville. A cleared county right-of-way path that was recently created, presumably to repair a broken water pipe near the stream is located to the left of 10 Three Willow Court, Catonsville (ADC Map 32 J-11). This easement trail should be restored as the muddy conditions are causing debris to be washed into the stream. The team observed extremely large tree logs have eroded and fallen across the stream, blocking the flow of the stream. This has resulted in some damming, notably pockets of debris caused by downed trees from storm water run off. Bruce Morton, nearby resident, notified us via e-mail after this recon that during heavy rainstorms the stream is backing water up into adjacent property homeowners' yards. Of extreme concern is a tree located directly behind 19 Hickory Ridge Court. This citizen concern and issue was reported to DEPRM via e-mail on February 9, 2008 for further investigation and correction. After our initial investigation, we received an e-mail from Bruce Morton. On February 9, he walked along the same path adjacent to the stream our observed several downed trees along the stream and what appears to be a water main break. This was immediately reported to DEPRM via e-mail for their investigation and action. To date, we have no further information on the investigation or action taken by DEPRM. In addition, illegal dumping of items such as tires and steel drums, as well as significant amount of "floatables" appear throughout the stream that needs to be removed.

Further downstream, Cedar Run runs through Patapsco River Valley State Park until it flows into the Patapsco River (ADC 32 H-12). This section of the stream, away from residential development, appears to be pretty clean, except for some "floatables" which appears to be from the recent rainstorm. Most of the debris from upstream has been caught by pockets formed by fallen trees. In this particular area, the presence of the native river oats (*Chasmanthium latifolium*) was prevalent. We discovered some type of valve and PVC barrel or pipe material along the sewer line within the park property.

Overall Impression: The Cedar Run sub-watershed The water flowing into the stream has no controls to slow it down to reduce its velocity, increasing the erosion during storm events. There is an urgent need to reduce the amount of water coming off the communities. There is serious down cutting of trees along most of the stream, and we observed water flowing from land off the rocks. Also observed was evidence of increased water flow from heavy rain water which separated (due to low bank erosion) resulting in water flow being released onto land, creating a braided stream.

An education program is needed for the Woodbridge Valley community to help reduce nutrients from entering the stream. Rain gardens would definitely benefit this community. The downed trees along Cedar Run reported by resident Bruce M. need to be immediately cleared to prevent extensive flooding in the event of a major storm.

We believe that if more development is allowed up stream, further erosion will occur as water flows are intensified, further exposing sewer lines.

### **Recommendations:**

#### Baltimore County:

- Recommend installation of step pools or plunge pool to slow down the water flow velocity which is causing significant erosion to the stream banks.
- Repair of broken water main (near 10 Three Willow Court, Catonsville (ADC Map 32 J-11).
- Rectify downed trees along Cedar Run in stream causing flooding during significant rain storms (near 10 Three Willow Court, Catonsville (ADC Map 32 J-11).
- Restoration of county easement trail to prevent further erosion (near 10 Three Willow Court, Catonsville (ADC Map 32 J-11).
- Work with Joe McQuaid, Baltimore County contact who we believe is in charge of the facility, to clean up litter and trash on county property near stream. Relocate dumpster away from stream, and insure no hazardous chemicals are being stored in large drums on county property close to the stream. Contact information below.
- Active projects to significantly increase a buffered area along the stream (tree plantings, native shrubs, etc.).
- Rip rap installed (or existing large rocks rearranged) to prevent further land erosion near sewer lines (near the entrance to Patapsco State Park (ADC Map 32 H-11),

#### FPVHG:

- DEPRM was notified of damming effect caused by fallen tree directly behind 19 Hickory Ridge Court along Cedar Run via e-mail on February 11, 2008 for further investigation and action.
- Schedule a group stream cleanup the weekend of April 4-6, in conjunction with Ellicott Mills Homeowners Association (EMHOA) open space cleanup on April 4. The community receives county sponsored dumpsters where homeowners are allowed to dump bulk trash. An additional group stream cleanup is tentatively scheduled for Saturday, May 31 to clean up remaining debris in stream.
- Educate residents in the Woodbridge Valley community (including Ellicott Mills, Westerly Apartments, etc.) about the adverse effect of cutting too close to stream and additional nutrient load that pet waste, leaf/grass clippings and fertilizer have on the stream, Patapsco River and Chesapeake Bay.