



## HOWARD COUNTY OFFICE OF EMERGENCY MANAGEMENT

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*Director*  
Ryan A. Miller

*County Executive*  
Allan H. Kittleman

Council Members,

We would like to thank the Council for all of the assistance that they have provided thus far towards flood response and recovery, including the two extensions to the local declaration of emergency. The quick passage of CB57, CB58, and CR108 assisted Howard County Government in rapidly responding to the flooding event that occurred on July 30<sup>th</sup> in Ellicott City.

As requested under CR108, we are submitting the attached report on the recovery progress to-date. The report has been organized by topic, and contains the following sections:

- Recovery Framework
- Resident Return Preparedness Meeting
- Ellicott City Recovery Town Hall Meeting
- FEMA – Public Assistance
- NRCS Emergency Watershed Protection Program
- Perimeter
- Infrastructure Recovery Progress
- River Clean-Up and Restoration
- Permitting and Inspections
- Recovery Assistance Office
- Housing
- Business Recovery
- Small Business Administration Program
- Maryland Business Recovery Loan Program
- #ECStrong Recovery Fund Committee
- Volunteer Organizations Active in Disasters
- Community Advisory Group

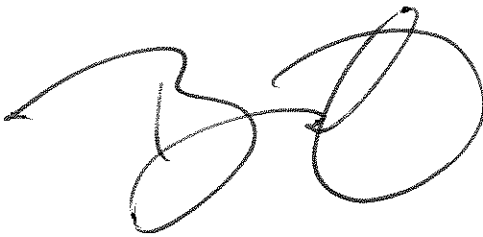
- Preservation Maryland
- Recovery Long Term Vision

Additionally, the report contains the following attachments:

- Recovery Framework Organization Chart
- Updated Damage Assessment and Cost Estimates

I will be providing the public briefing to the County Council on September 12<sup>th</sup> at 4:00 pm to provide a verbal brief out of this report, and answer any questions that you may have.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Miller', with a large, stylized flourish at the end.

Ryan A. Miller

Director, Office of Emergency Management

# Report to Council

## Recovery Framework

We have cleaned up the Recovery Framework chart to make it easier to read. The new chart can be found at the end of this report.

## Resident Return Preparedness Meeting

A forum for affected residents will be held on September 11<sup>th</sup> at 5:30 pm at the Ellicott City 50+ Center. The goal of the forum is to help provide residents with information, and to answer any questions that they may have, prior to reoccupying their residences. Representatives from the Health Department, DHCD, Constituent Services, Office of Consumer Protection, the Long Term Recovery Committee, DILP, DFRS, and DPW will be presenting on the following topics:

- Landlord/Tenant questions
- Safety
- Environmental Health
- Parking
- Resources to replace food, shelter, furniture
- Resources for mold remediation, and construction

## Ellicott City Recovery Town Hall Meeting

A town hall meeting has been scheduled for Wednesday, September 14<sup>th</sup> from 7:00 – 8:30 pm. The town hall meeting will allow for residents, businesses, and property owners to be provided with an update on recovery, as well as ask any questions that they may have. This meeting will also allow the #ECStrong Recovery Fund application to be rolled out, and explained.

## FEMA – Public Assistance

Governor Larry Hogan officially requested a Presidential Declaration on August 12<sup>th</sup>. At the time of writing, we are still waiting to hear back from FEMA. The following chart shows the Howard County costs that were submitted to FEMA with the declaration request. There were additional costs submitted that were accrued by Baltimore County, and state agencies.

	Category A	Category B	Category C	Category D	Category E	Category F	Category G	TOTAL
Jurisdiction	Debris Clearance	Emergency Protective Measures	Roads / Bridges	Water Control	Public Build. & Equip	Public Utility Systems	Park and Rec.	
Howard County	\$887,277	\$2,516,863	\$2,443,935	\$355,000	\$105,700	\$1,221,224	\$90,879	\$7,620,878
DOT/SHA	\$0.00	\$4,123	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,123
<b>Total</b>	\$887,277	\$2,520,986	\$2,443,935	\$355,000	\$105,700	\$1,221,224	\$90,879	<b>\$7,625,001</b>

The costs in the above table only reflect the eligible costs under the FEMA program. This is not the full financial cost to Howard County in responding to, and recovering from, the flood. An updated Damage Assessment and Cost Estimate table can be found at the end of this report. At this point the total estimated cost is \$11,943,818.36. This figure represents a slight decrease from the last update to the Council, mostly due to changes in estimates for DPW infrastructure and storm water management damages as more information becomes available.

It is important to note that not every dollar that is spent following a disaster is recoverable, and even for the costs that are allowable costs under FEMA we will only receive a reimbursement rate of 75%. Disasters are expensive, and moving forward we should continue to prioritize mitigation and preparedness projects that will help reduce the overall costs of disasters. In 2005, the Multihazard Mitigation Council (MMC) conducted a widely cited study, Natural Hazard Mitigation Saves: An Independent Study to Assess the Future Savings from Mitigation Activities, which documented how every \$1 spent on mitigation saves a community an average of \$4. As part of the recovery to this flood Howard County hopes to invest in greater flood mitigation controls and preparedness, to help reduce expensive disasters in the future.

### NRCS Emergency Watershed Protection Program

The NRCS Emergency Watershed Protection Program assessed 10 sites within the watershed (see map for site locations). The following map shows the site locations:



Ultimately, sites 1,5,6, and 8 were determined to be ineligible for the program. Sites 2, 3, 4, 7, 9, and 10 are all eligible projects to repair damage to retaining walls along the Hudson tributary to the Patapsco river. These retaining walls protect, and are part of, the foundations to historic buildings in the Old Mill Town of Ellicott City Maryland. The following table shows the installation costs for each site. Under the NRCS program, they pay 75% of costs and the sponsoring entity (Howard County) pays the remaining 25%.

Site Name	Site Number	Total Installation Cost (NRCS 75%/Howard County 25% Cost Share)
Upstream of Court Avenue	2	\$990,000.00
Ellicott Mills Brewing	3	\$295,000.00
Under LaPalapa	4	\$33,000.00
Behind 8181 Main Street	7	\$148,000.00
Upstream Old Columbia Pike	9	\$256,000.00
Rail Road Museum	10	\$10,000.00
<b>Total</b>		<b>\$1,732,000.00</b>

Site 2 involves sections of retaining walls that are on private property. Howard County would need a permanent easement on any sections of private wall before the repairs could move forward. We will not be using the NRCS program for sites 4, 7, or 10. These sites are already under construction. Howard County is working on moving forward with the remaining three project sites. These sites have a total estimated installation cost of \$1,732,000.00. NRCS will be responsible for \$1,155,750.00, and Howard County will be responsible for \$385,250.00. We are currently working on a signed agreement between NRCS and Howard County so that remediation work can begin.

## Perimeter

Main Street between Court Avenue and Forrest Street will be reopened to pedestrian and vehicular traffic on Monday September 12th. In addition, we have made another 15 parking spaces available on Lot "F" which is located at the top of Main Street near Ellicott Mills Drive. This means that 80 percent of that lot is now open to the public. This further constriction of the perimeter will allow additional businesses to either reopen or to begin rebuilding efforts following the July 30 flash flood. On September 17th, we will re-open Main Street to CREDENTIALLED pedestrian traffic from 7 a.m. until 7 p.m. This includes business owners, property owners, residents and construction workers. They will have access for three days. There will be no on-street parking on Main Street during that time, but those with credentials will be allowed to take their vehicles in for loading and unloading, and traffic on Main Street will be one-way. The purpose of these three days is to provide property owners with a little more time to finish some clean-up projects and secure their buildings before we open up Main Street to the public. We will continue to provide credentialing services at the Roger Carter Center, effective September 9th, from 7 a.m. to 10 p.m., seven days a week, through September 20<sup>th</sup>. On September 20th, we will officially reopen Main Street to the public for pedestrian traffic only. However, this area will still be an active construction zone, and changes to traffic patterns, including one-way traffic, detours, lane closures, flagging operations, and temporary complete closures would be likely for some time to come. Prior to the 20th, Howard County Government will ensure that we provide information about what the traffic pattern will be like.

We had hoped the bridge over the Patapsco and Maryland Avenue would be open by now, but our work there proved to be a little more extensive and time consuming than we anticipated. We had to install a new water line to the B&O museum for fire protection. The wall next to that museum was at risk of failure and it would have blocked all flow out of Ellicott City, so we also had to fix that. There was other necessary work in the plaza area. And the State Highway Administration had to repair bridge railings and the sidewalk. We now anticipate the bridge will re-open by 7 a.m. on September 17th. The traffic signals will be in operation by then as well. However, there will still be one-way traffic from the CSX bridge to Maryland Avenue when construction dictates.

## Infrastructure Recovery Progress

The extension of the declaration of local emergency gave the county executive continued power to control access into the affected area along Main Street. Continuing to block off this area from pedestrian

and vehicle traffic allowed DPW to continue to make needed repairs, including repairing storm drain inlets, filling sink holes, paving roads, reestablishing utility connections and rebuilding sidewalks. Since the last Council report DPW crews have:

- Conducted an assessment of critical infrastructure from Rogers Avenue to the CSX Railroad Bridge.
- Removal additional storm debris from Streets/sidewalks, parking lots, streams and channels from Rogers Avenue to the CSX Railroad Bridge.
- Assessed, cleaned-out and/or reconnected downspouts channels from Rogers Avenue to the CSX Railroad Bridge.
- Repaired water and sewer connections channels from Rogers Avenue to the CSX Railroad Bridge.
- Removed and installed new sanitary sewer pumps at Sylvan Lane.
- Completed a temporary restoration of sidewalks and streets along Main Street from Ellicott Mills Road to Maryland Avenue.
- Restored Parking Lot F at Ellicott Mill Drive and Main Street.
- Completed repair, milling, and paving of Hill Street, and Merryman Street.
- Began slope repairs/stabilization on Hamilton Street
- Placed the foundation and wall stem for the retaining wall on Hamilton Street; Backfilled part of the retaining wall and provided an opening for the storm drain pipe that will be installed through the wall. The design of the storm drain system from Main Street to the wall has been completed.
- Completed traffic signal assessments, and repairs at several intersections.
- Installed new retaining wall/repaired existing retaining walls at the South Side of Main Street and the CSX Railroad Bridge, at the B&O museum, and several additional locations.
- Power vacuumed 90% of the storm drains on Main Street to remove debris and allow for better flow of storm water.
- Two storm drain inlets were increased in size on Main Street between Merryman Street and Forrest Street. This will allow for the collection of additional storm water from Main Street.
- BGE Gas activities – installation of sections of gas line, and trench cutting operations.
- Designed a sewer system that will replace the existing system adjacent to Tiber alley.
- Removed the cobblestones at Tiber Alley and preserving the cobblestones for future use.
- Completed the power vacuum of the storm drains on Main Street and Maryland Avenue.
- Installed Ellicott City clock in Front of the B&O Museum. Placed new curb and gutter along the clock tower plaza. Completed the asphalt to temporary restore the Clock Tower Plaza.
- Installed foundation wall at the Salon near Hamilton Street and partially backfilled area
- Installing fire protection to the B&O Museum
- Repaired of piping at Emory Lane. Completed work on Emory Street to Courthouse parking lot.
- Completed utility connection work at several sites.

The following is a list of major DPW activities that still needs to be completed prior to the reopening of Main Street:

- Temporary restoration of sidewalks and streets along Main Street to make passable and safe for pedestrians and vehicles from Merryman Street and Maryland Avenue.
- Complete backfill and placement of temporary sidewalk on the South side of Main Street between Hamilton Street and Old Columbia Pike.
- Reconstruction of the storm drain inlet on Main Street at Maryland Avenue.
- Installation of wiring and traffic signal on Main Street and Old Columbia Pike.
- Installation of wiring and traffic signal on Main Street and Maryland Avenue.
- Installing a temporary wall between Lot F and Lot E, and Complete swale and channel work between Lot F and Lot E.
- Begin BGE Gas activities. This is the installation of a gas main from Court Avenue to the Baltimore County Line. The existing gas line was abandoned due to damage from the storm on 7-30-2016.
- Court Avenue (Lot F) channel repairs.
- Start sewer work on Tiber Alley
- Continue Hamilton Street Retaining Wall and restore access to Hamilton Street from Main Street.
- Complete permanent repairs to the wall behind Ellicott Mills Brewing Company and wall between Lot E and Lot F.
- Open up access through Baltimore County via Maryland Ave-St. Paul St.
- Install inlet and storm drain system from Main Street to the Hamilton Street retaining wall
- Repair retaining wall adjacent to the B&O Museum and the water inlet

Finally, the following are activities that are expected to still be in progress following the reopening of Main Street:

- Complete BGE gas Activities (All Divisions).
- Complete Hamilton retaining Wall.
- Possible Repaving of Lot D.

## River Clean-Up and Restoration

The Maryland Department of Natural Resources is taking responsibility for clearing the debris piles that remain in the Patapsco River. We continue to coordinate with them on river clean-up operations. Additionally, we are currently coordinating an effort to pick up found items from the State Park. We will be retrieving many historic construction materials that can be reused. DPZ is coordinating these pick-ups.

## Permitting and Inspections

Howard County Government has developed a July 30th Flood Repair Permitting Process. All Building permits for flood damage repair will be handled in an expedited process by appointment. This process will be in effect until December 31, 2016 while CB58 waiving fee for flood damage repair is in effect. The following review agencies will be available at the George Howard Building to expedite the process: DILP Plan Review, Zoning, Development Engineering, Historical Preservation and Health Department (Food



Service Facilities). The following repairs do not require a permit and can be completed when the owner is ready:

- General Clean up
- Replacing drywall for Non-Load Bearing walls (This includes adding or replacing insulation).
- Replacing any finishes like floor finishes, wall finishes, or lay-in ceilings. Health Department should be contacted before beginning work to discuss regulatory requirements for floors, ceilings, and walls in Food Service Facilities.
- Repairing or replacing “in kind” any doors and windows (No new rough-opening framing). However, in kind replacement/repair that does not use the same design or materials may require HPC approval.

The Howard County Health Department’s Food Protection Program has completed a “Disaster Recovery Guideline” to go along with DILP’s streamlined permit review/approval process. The guide is being distributed to all remaining food service facilities in the recovery area that have not already been opened.

## Recovery Assistance Office

On Monday, Aug. 29, the Disaster Assistance Center transitioned into a smaller Recovery Assistance Office (RAO) geared toward personalized support. The Office has been open on weekdays, Monday and Tuesday from [9 a.m.](#) to [6 p.m.](#) and Wednesday to Friday from [9 a.m.](#) to [3 p.m.](#) at the Ellicott City 50+ Fitness Center. The RAO will remain open until at least Sept. 20. Through September 6<sup>th</sup> the RAO has seen 14 in-person visitors, and had 56 phone call encounters (for 70 total encounters since the RAO opened on August 29th).

## Housing

There has been no change in residents being housed and no new need has been identified: 19 households have been relocated to apartments with the Commission; 15 households at Columbia Landing; 3 households at Verona, and 1 household at Orchard Meadows. A recent update from the Housing Commission indicates that most of the displaced residents are still undecided on their long term housing plans. As of September 7th, 2016 MD DHCD has received 39 applications for the MDHAP/short-term rental assistance program. They have approved payments for 6 families and they have another 9 families that are currently being processed. As of September 1st, one housing unit on Main Street has been reopened - Howard House, 8202 Main Street.

## Business Recovery

The Economic Development Authority held two educational forums on loan programs and businesses services available to those businesses affected by the flood. Representatives were present from the U.S. Small Business Administration, Small Business Development Centers, Maryland Department of Housing & Community Development, Preservation Maryland, Howard County Department of Planning and Zoning, the Ellicott City Partnership, and the Howard County Economic Development Authority. Sixty-four businesses attended the forums. Main questions/interest from the businesses at the event were:

- Long-term water control /flood mitigation efforts
- Uncertainty as to what will happen when the street re-opens. What does that mean specifically for vehicles, residents, tourists, etc.?
- Concern that insufficient number of businesses will re-open or an insufficient number of new businesses will be attracted and Main Street will suffer from lack of density to draw adequate shoppers. This would extend the economic impact will be extended.
- Desire for information on grant funding opportunities.

EDA continues to work on addressing the unmet needs of the affected businesses. Two additional business forums, focused on insurance, were held on September 7<sup>th</sup>. Representatives were present from FEMA's Insurance Division, MEMA, Maryland Insurance Administration, and Maryland Department of the Environment. Twenty businesses attended one of the insurance forums.

## Small Business Administration Program

The Small Business Administration's Disaster Loan Outreach Center is fully functional at the Ellicott City 50+ Center. Since the DLOC opened the SBA has had 90 contacts and the 22 applications (10 Home and 12 Business). The DLOC will be shutting down on September 15th. Individuals/businesses will have until October 11, 2016 to apply for SBA loans for Physical Damage. They have until May 10th, 2017 to apply for loans for Economic Injury.

## Maryland Business Recovery Loan Program

We have worked with our state partners to make the Maryland Business Recovery Loan Program an option for businesses impacted by the flood. The Maryland Business Recovery Loan Program is an emergency loan program which will provide up to \$50,000 (amount based on damage assessment) at an interest rate of zero percent (0%). The funds can be used for repairs, inventory replacement, and working capital. As of September 6<sup>th</sup>, 12 businesses have applied for, and been approved, for Maryland Business Recovery Loan Program loans. The total amount of loans thus far through this program is \$502,000.

## #ECStrong Recovery Fund Committee

The #ECStrong Recovery Fund Committee has developed and approved the application for funding. They have also developed a FAQ sheet, and a cover sheet with application instructions. There will be three separate applications: property owner, business, household. The current schedule for the #ECStrong Recovery Fund Application is:

- 9/9 – application release
- 9/14 - turn on application system. Software will be able to accept apps
- 9/14 – have info session on the #ECStrong Recovery Fund application as part of the Town Hall Meeting.
- 9/26 - deadline to apply for first round of funding

- 9/30 – #ECStrong Recovery Fund Committee will review applications with no identifying info (will be an open meeting)
  - Oct 5<sup>th</sup> – Another review meeting if needed.

## Volunteer Organizations Active in Disasters

The American Red Cross has closed out their work in Ellicott City and has passed along their client data to the #ECStrong Recovery Committee and the Long Term Recovery Committee for clients who agreed. During their work in Ellicott City the ARC provided:

- Over 70 volunteers.
- 10,000 bottles of water served.
- 4,600 meals served in coordination with Corrections.
- 800 bulk items distributed (Cleanup Kits, buckets, tubs, wheel barrels etc.).
- 80 cases were opened serving 189 people with direct client financial assistance.

The first meeting of the Long Term Recovery Committee was held on September 7<sup>th</sup>. The Long Term Recovery Committee (LTRC) is a cooperative body that is made up of representatives from the faith based community, nonprofits, government, and businesses/other organizations. The goal of the LTRC is to unite recovery resources with community needs in order to ensure that even the most vulnerable in the community recover from disasters. The LTRC has identified between 32 and 40 affected homes in the West End, and about 60 businesses/property owners/homeowners that have unmet needs that the LTRC may be able to fill. The next meeting will be held on September 14<sup>th</sup> at 1:30 pm at Mt. Zion Church.

## Community Advisory Group

The Community Advisory Group has continued to hold meetings. Its mission is to foster community awareness and provide input for the future of Historic Ellicott City to make it a model resilient town through an emphasis on mitigation practices that integrates people, organizations, and local government.

The Advisory Group members were given the following directions:

- To support the six principles established by the County Executive that guide the long-term recovery efforts for Historic Ellicott City, and give advice on ways to enhance how the County conducts the comprehensive recovery process.
- To provide feedback on the County's list of potential projects, as well as provide additional insight on other ideas that will support the goal of making Ellicott City a model resilient community.

Advisory Group meetings will occur every Thursday from 4PM-5:30PM. The Community Advisory Group meetings are public meetings, and as such the agendas and meeting minutes are always made available online.

## Preservation Maryland

Preservation Maryland will be opening a temporary resource center in Ellicott City to assist owners of historic properties in their recovery and rebuilding efforts following the July 30 flash flood. The Preservation Resource Center will provide technical assistance to help owners rebuild damaged historic properties along Main Street, connect them with consultants and contractors, help them with the historic district review process and provide them with information on relevant local, state and federal financial assistance and tax credit programs.

## Recovery Long Term Vision

The recovery process will use science and input from the community in order to ensure that all actions taken will minimize the damage of future flooding to the fullest extent possible and preserve the character of the town. The Recovery Process will be comprehensive and multi-faceted, as it will be driven by the following pillars:

### *Case Study*

Over the next two months, the Office of Emergency Management will oversee a consultant that will provide a case study of what occurred on the night of July 30, 2016. This consultant will interview individuals in the community in order to piece together how the Hudson Branch, Tiber Branch and New Cut Branch acted that evening as these waters poured into the Patapsco River. A similar study was conducted after Tropical Storm Lee in 2011.

### *Stream Corridor Assessment*

We are also in the process of hiring a consultant to assess the stream corridor. The purpose of this study is to perform a visual survey and document the stream / channel conditions within the Tiber / Hudson following the flooding on the 30th. This survey will include mapping, written, and photographic documentation of any conditions that may affect flooding of adjacent properties or contribute to additional stream instability.

### *Hydrologic and Hydraulic Study*

Over the next six months, the Department of Public Works will oversee a consultant to conduct a hydrological and hydraulic analysis of the Hudson Branch, Tiber Branch, and the New Cut Branch. This will expand upon the 2013 McCormick Taylor study that analyzed the Hudson Branch between Rogers Avenue and Old Columbia Pike. This extensive analysis will be crucial in modeling various storms and the impact they would have on Ellicott City, as well as measuring the benefit of potential flood mitigation projects. The case study will be critical in verifying the modelling that this study will generate.

### *Community Input*

#### **Community Resiliency Initiatives**

It is incredibly important that as Howard County searches for funding sources at the federal level that they begin to collect a list of projects that they feel will assist in making Ellicott City a model resilient community. These project ideas should be collected within county government, as well as from the community. It is essential that before this process begins, the following is clarified:

1. Not all project ideas will be feasible
2. Project ideas will be prioritized by the largest benefit they will provide in making Ellicott City a model resilient town
3. Not all project ideas will be funded

Clarifying these items outright will decrease the possibility of building false hope that every idea will result in a project. In addition, providing individuals with the opportunity to express their ideas early in the process will also assist in healing from this tragedy and provide optimism for what may occur in the future.

Over the next two weeks, county department heads, under the direction of the County Executive, will finalize initiatives they believe will most greatly benefit the recovery of Ellicott City in the general elements of housing, economic growth, infrastructure recovery, and community development. The County will then provide these initiatives to the Community Advisory Group with the desire that they will provide feedback on these projects, as well as add any projects they feel would provide significant benefit to the recovery of Ellicott City. The Community Advisory Group should also be asked to listen to ideas the community may have as well. The Community Advisory Group is an advisory body that is not making decisions on which projects to pursue, but rather, they are gathering project ideas from the community in order to help refine the strategy for the future of Ellicott City.

### ***Community Listen and Learn Sessions***

Over the next six months, the Community Advisory Group will be conducting listen and learn sessions with the assistance of Public Engagement Associates in the community that will initially be tailored to address the evolving needs of the community, and then adapted to provide assistance to the comprehensive planning process. These meetings will be effective in providing informational sessions that will help educate the public prior to beginning the comprehensive planning process, and also provide an opportunity for the county to learn more from the community about their vision for the future of Ellicott City.

### ***Comprehensive Planning Process***

In six months, the Departments of Planning and Zoning and Public Works will take the completed Hydrologic and Hydraulic Study, as verified by the Case Study, and the list of project ideas generated by the County and the community, and they will:

1. Begin a comprehensive planning process utilizing the list of project ideas as the general direction of the community
2. Begin refining and prioritizing projects in the final list of projects

The first comprehensive plan will be completed within 4 months (11 months in total) of beginning this process. During this period of time, projects will start to be filtered out and prioritized. An updated list of projects should be presented with, or before, the first comprehensive plan. It is essential that in producing this list of projects, it should be clearly articulated why a project was not feasible, or was not given a priority status. This process will not be successful without total transparency.

### *Moving Beyond Summer 2017*

After the comprehensive plan is submitted and the list of projects is prioritized, the County should pursue the priority projects. As the County continues to move forward in the pursuit of these projects, the County should update the list of projects as they are completed, lose funding, or community priorities change. It is vital to the full recovery of Ellicott City that this strategy is adapted to meet the needs to the community.