2012

Case Study: Valley Mede-Ellicott City Tropical Storm Lee Flood Event

Case Study-2011 Valley Mede-Ellicott City Tropical Storm Lee Flood Event

S&S Planning and Design, LLC.

6/28/2012

Section 1: Overview

1.1 Purpose

Heavy rains from Tropical Storm Lee resulted in localized flooding within Howard County, specifically in the Valley Mede and Ellicott City areas on September 7, 2011. In an effort to capture all available information on the local impacts of Tropical Storm Lee to make appropriate preparedness, response, and mitigation improvements in the future; the Howard County Office of Emergency Management commissioned a case study report. The Department of Public Works also commissioned a report which focused on the stream conditions in and around Ellicott City. This Case Study's purpose includes the collection of information and documentation specific to properties that were impacted by flood waters along portions of the Tiber Branch in lower Ellicott City and Plumtree Branch in the Valley Mede area.

Information/Documentation presented within the Case Study includes:

- **Section 1: Overview – Pages 1-3**
  Describes data collection efforts and sources of information;

- **Section 2: Method – Pages 1-2**
  Details citizen interview process and information obtained including: Property Owner and/or Occupants Mapping of properties in the study area that experienced flood damage during Tropical Storm Lee including property owner contact information and a description of the extent and value of the damage, as available;

- **Section 3: Results – Pages 1-2**
  Provides interview results and source of the flood waters, such as, stream overflowing its banks, backup of flood waters behind a culvert or other channel restriction, street flooding.

- Appendix A: Flood Event Log
- Appendix B: ARC GIS Map Exhibits & Attribute Table
- Appendix C: Description of Damages and/or Flood Conditions
- Appendix D: Repository

1.2 Tropical Storm Lee

Tropical Storm Lee was the twelfth named storm and thirteenth system overall during the 2011 Atlantic hurricane season This storm system developed from a broad tropical disturbance over the Gulf of Mexico on 1 September 2011 and continued through into the Mississippi Valley. The system turned east-northeast on the 4th, and the cyclone's circulation slowly moved through the Southeast, becoming an extra-tropical cyclone on the 5th. Lee turned more northeastward, and a triple point low developed near the intersection of a cold front, and warm front. As shown of the Figure 1, the study area was within the heaviest rainfall vicinity.

FIGURE 1

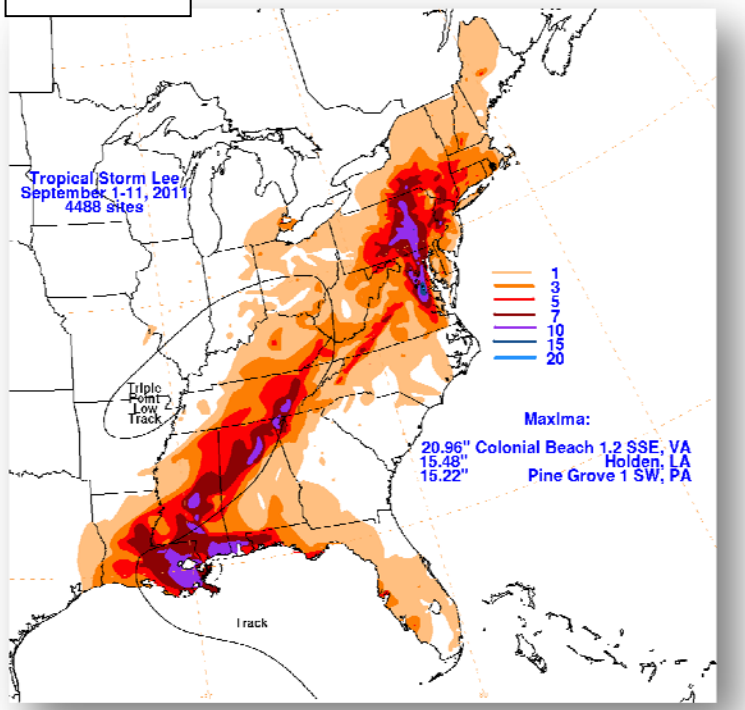


Image Source Page:
http://www.hpc.ncep.noaa.gov/tropical/rain/lee2011.htm

1.3 Data Collection

In order to obtain the necessary data needed to complete this Case Study, property owner (residential and commercial) interviews were conducted. A total of seventy-six interviews were conducted; a majority of which, were in-person. Data collection occurred during May and June of 2012.

Additional sources of data collected included photographs and video taken during the flood event, as well as, various incident reports and files collected by County staff.

During the course of the flood event and the weeks following, various sources of information regarding the flood event were collected and cataloged in Appendix D: Repository. Types of information included:

- WebEOC Log data,
- Briefing Reports,
- Stream Gage data,
- Pictures, and
- Video Footage.

In order to provide an overview of the flood event, a timeline was developed. A flood event log containing detailed information has been included in Appendix A.

Section 2: Interviews

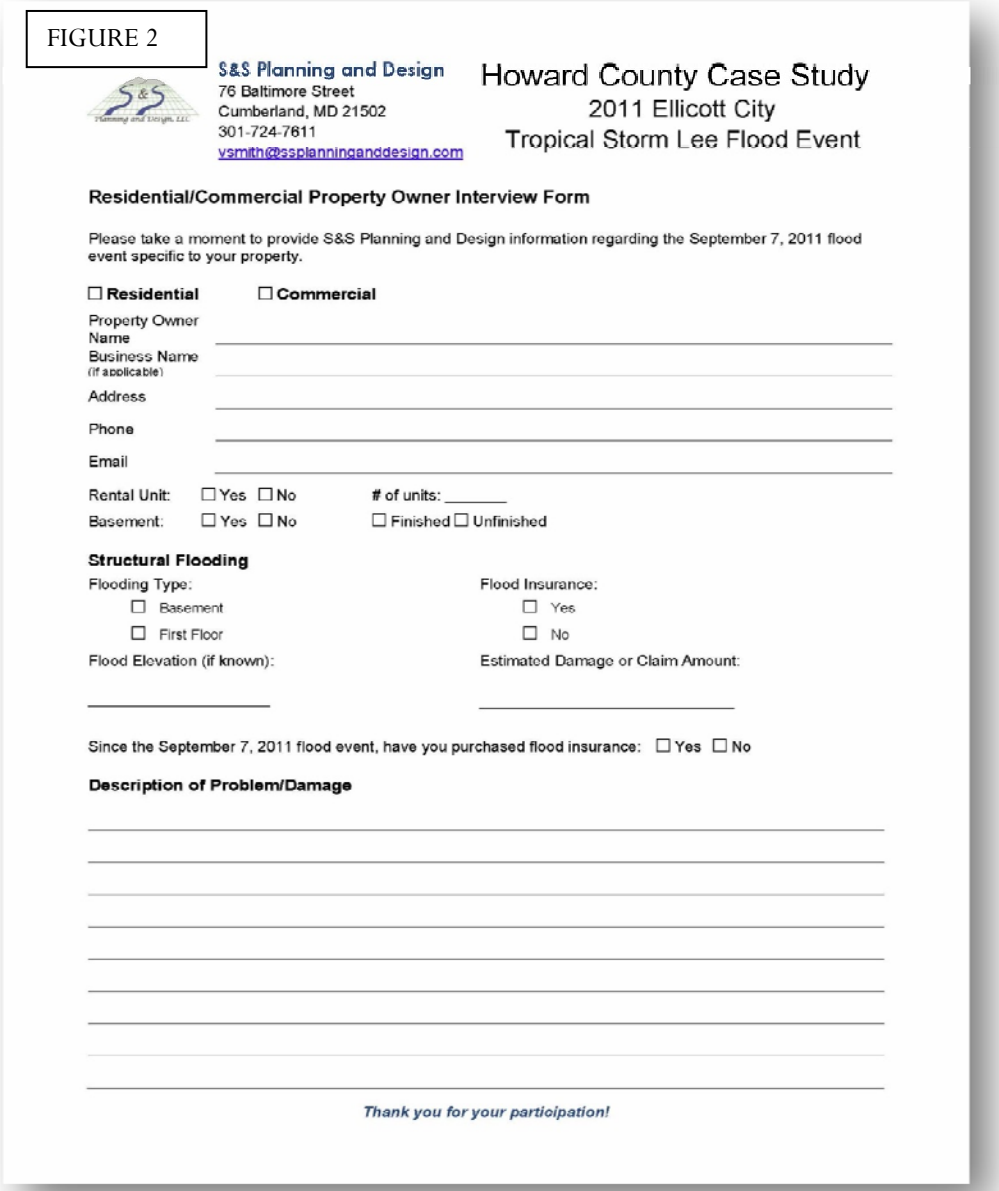
2.1 Data Gathering - Interview

The first step in the process of obtaining individual property information specific to the 2011 Tropical Storm Lee flood event was the development of an interview form, as shown on Figure 2. Staff from S&S Planning and Design went door-to-door throughout the Study Area, obtaining in-person interviews. For those properties that were not captured during the field interview process, email and phone interviews were conducted.

2.2 Data Compilation - Mapping

The second step in the process included compiling the data into a usable format. In order to compile the data, property information gathered during the interview process was entered into ARC GIS and Excel software, and plotted on various maps, found in Appendix B. Figure 3 is an example of the mapping product as seen utilizing ARC GIS software.

FIGURE 2



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Howard County Case Study
2011 Ellicott City
Tropical Storm Lee Flood Event

Residential/Commercial Property Owner Interview Form

Please take a moment to provide S&S Planning and Design information regarding the September 7, 2011 flood event specific to your property.

☐ **Residential** ☐ **Commercial**

Property Owner Name _____
Business Name (if applicable) _____
Address _____
Phone _____
Email _____

Rental Unit: ☐ Yes ☐ No # of units: _____
Basement: ☐ Yes ☐ No ☐ Finished ☐ Unfinished

Structural Flooding

Flooding Type:
☐ Basement
☐ First Floor

Flood Insurance:
☐ Yes
☐ No

Flood Elevation (if known): _____

Estimated Damage or Claim Amount: _____

Since the September 7, 2011 flood event, have you purchased flood insurance: ☐ Yes ☐ No

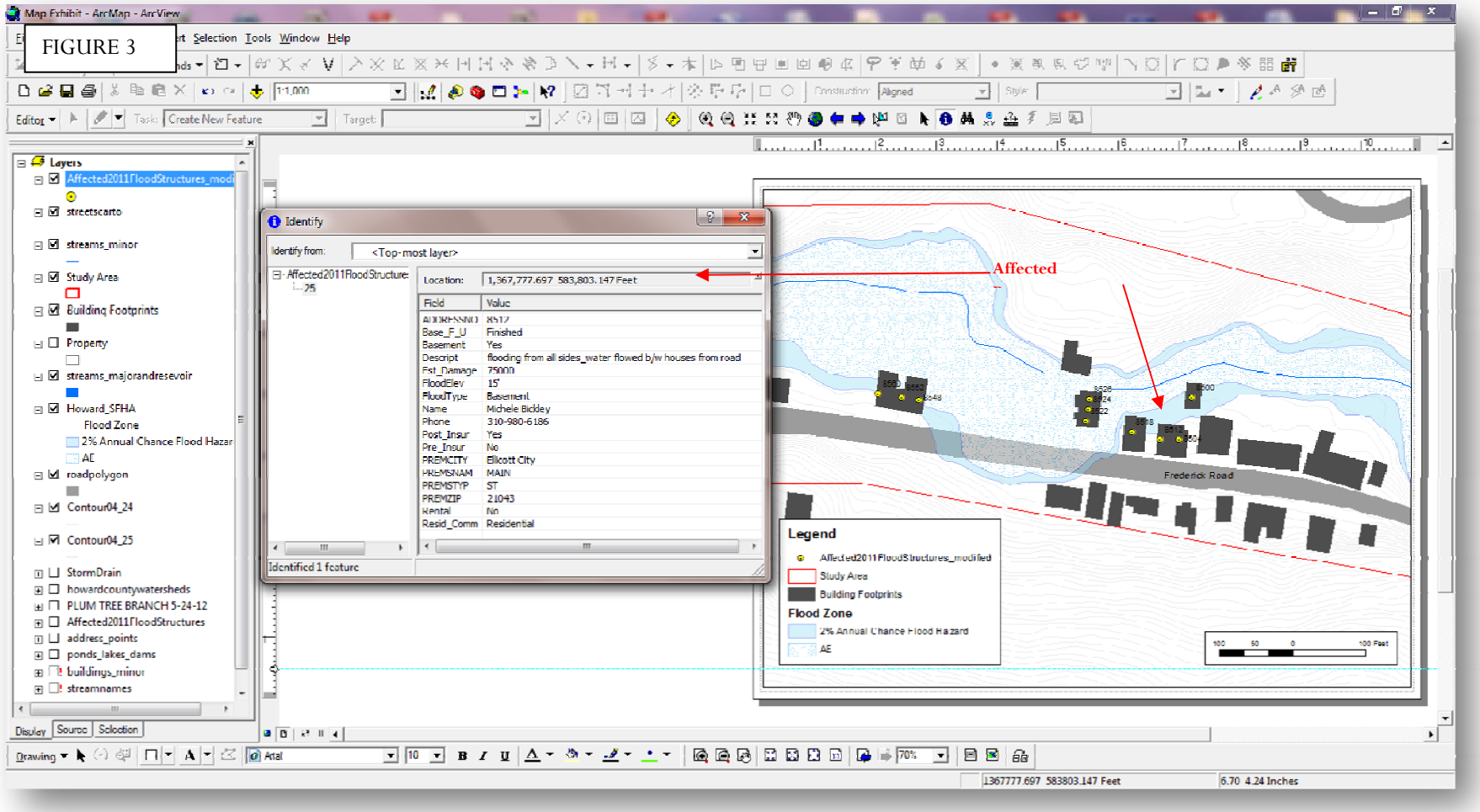
Description of Problem/Damage

_____
_____
_____
_____
_____
_____
_____
_____

Thank you for your participation!

Each data point, shown as yellow dots on the map in Figure 3, has an associated identifier, and may be accessed in ARC GIS as a clickable point. Data captured on the interview form has been incorporated into ARC GIS and appears in a data box for each property associated with an identifier.

FIGURE 3



In addition, information provided by property owners participating in the survey pertaining to the *Description of Property Damages* section on the interview forms, have been compiled in Appendix C.

Section 3: Results

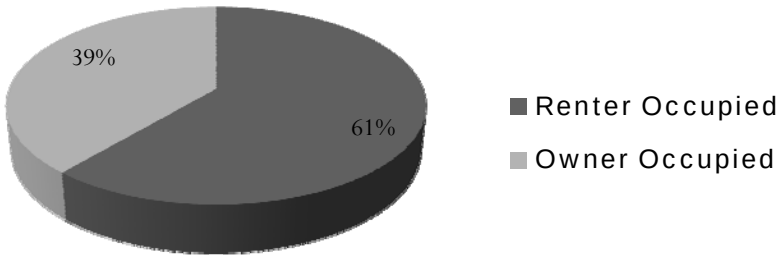
3.1 Interview Results

Information extracted from the Interview Forms is compiled and presented in Table 1.

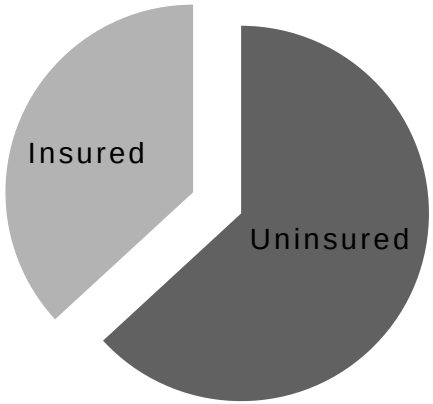
TABLE 1

Total # of Properties Interviewed		**Total # of Properties Impacted by Flood Event**				**Total # of Properties Reporting Monetary Flood Damage**							
76		49				20							
Residential	**Commercial**	**Residential**		**Commercial**		**Residential**				**Commercial**			
33	43	27		22		11				9			
		Owner Occupied	**Renter Occupied**	**Owner Occupied**	**Renter Occupied**	**Owner Occupied**		**Renter Occupied**		**Owner Occupied**		**Renter Occupied**	
		14	13	5	17	9		2		4		5	
						Flood Insurance		**Flood Insurance**		**Flood Insurance**		**Flood Insurance**	
						Yes 5	No 4	**Yes 0**	No 2	**Yes 1**	No 3	**Yes 2**	No 3
						Total Damages Reported: $ 528,800.00							

Impacted Properties Occupany Type



Properties Reporting Monetary Damages- Flood Insurance



Many of the properties impacted by the flood event are renter occupied. However, the renter occupied units were not inhabited by those who were occupying the properties during the flood event. The majority of these properties have new renters. Note: the loss of rental income experienced by property owners was not tabulated in the *Total Damages Reported* in Table 1.

The majority of property owners interviewed within the study area do not participate in the National Flood Insurance Program. Many of those interviewed indicated that since they were not located within the FEMA Mapped 100-year Floodplain, they were not eligible to purchase flood insurance. This is a common myth that may be debunked with a public information campaign regarding the purchase of flood insurance.

3.2 Property Zones and Mapping

Information extracted from the *Description of Property Damages* from Interview Form, as well as interviewer notes acquired during property owner interviews is compiled in narrative format and mapping illustrating the flow of flood waters is presented by address zones.

8700 Address Zone

Structures within the 8700 zone were impacted by flooding from the creek and flood waters that escaped the channel and utilized Frederick Road as a flood conveyance. All of the structures within this zone are located on the south side of Frederick Road. Flood waters 'jumped' out of the channel at the Frederick Road Bridge No. 1 as indicated on the map.It is likely that a debris accumulation may have occurred at the upstream edge of the bridge, thereby resulting in or exacerbating the flood waters leaving the channel. Flood waters then flowed east along the northern side of the road, somewhat contained by the road crown and a swale feature on the northern side of the road; however, flood water was continuously cresting the road crown and flowing back toward the actual floodplain and creek channel. The majority of the flood flow then crossed to the south of Frederick Road at a low point immediately west of the Rogers Avenue intersection. The section of Hudson Branch immediately across from the Rogers Avenue intersection consists of a rectangular concrete channel. Observers noted that some flood water continued to flow down Frederick Road.

8600 Address Zone

Structures within the 8600 zone experienced flooding from the creek and what witnesses described as excessive stormwater runoff down Rogers Avenue. A concrete stormwater junction box is located to the northeast of the Rogers Avenue/Frederick Road intersection. Witnesses reported that the manhole access cover was 'blown off' the lid of the box. Additionally, they reported that the concrete top was being elevated. This observation would indicate that the junction box and the stormwater pipes leading to it were at capacity, creating sufficient hydraulic pressure to lift the top and remove the manhole cover. With the stormwater system at capacity, excess stormwater would utilize the roadways as the storm conveyance.

The combined flows from the creek channel/floodplain, Frederick Road, and Rogers Avenue, in conjunction with the low, flat topography of the area, created a large area for floodwater to accumulate. It was reported that the water was over the guardrail of the bridge leading to the small parking lot across from the intersection. Immediately downstream of the intersection, the topography constricts the valley again and the gradient gets steeper. At approximately the middle of this zone, it was reported that the flow depth over the road was estimated at 12-18 inches. The structures immediately adjacent to the creek experienced water in the basements due to the elevated creek levels. The rear of many of these structures terminate at the stacked stone flood wall along the creek, with some structures overhanging the creek, or completely bridging the creek to the far bank.

This zone extends downstream to just beyond the inlet of the large culvert that conveys flow under Frederick Road and several commercial properties. Witnesses reported that floodwaters were overtopping the culvert inlet and continuing down Frederick Road.

It is possible that debris accumulation or blockage at the culvert inlet resulted in flood waters overtopping the culvert headwall and continuing down Frederick Road.

8500 Address Zone

Flooding within the 8500 zone was the result of both flood waters from the creek and roadway. Witnesses reported significant flood flow down Frederick Road. A very large and long culvert conveys flow (9' diameter x 600' length) under Frederick Road and several commercial businesses. Observers stated that during the flood a significant amount of water was flowing down Frederick Road. Some flood flow re-entered the floodplain around property identifier 8560 on both sides of the structure. Downstream of this structure and within the floodplain, a berm had been installed within the last several years. The presence and orientation of this berm redirected flood flow from Frederick Road, thereby preventing flow from returning to the channel. This berm effectively transferred flood flow downstream into an area with additional structures.

An additional culvert is located within this zone. The channel approaching the culvert inlet is armored with gabions in a trapezoidal shape. A preponderance of Japanese Knotweed is located along both banks. An eye witness stated that an approximately 8-10" Red Maple had been leaning diagonally across the culvert inlet during the flood event. Witnesses stated that the inlet was almost completely blocked with debris. Therefore, this culvert inlet also created additional backwater and another location where flood flow 'jumped' from the channel.

Many witnesses to the flood stated that at one point, it appeared as though a 'wall of water' came down the channel. Near Property ID 8500 a small wooden footbridge existed prior to the flood event. An eye witness stated that water and debris was piling up behind this footbridge, then suddenly, one side of the bridge/abutment connection failed and the footbridge swung open like a gate, releasing the backed up water and debris. The rushing water at this location resulted in severe bank erosion, with some streambanks losing 10-12 feet of lateral material. Severe erosion and land loss occurred throughout this reach. Some sections within this zone lost 10-12 feet of streambank.

8400 Address Zone

The 8400 zone did not have any reported damages due to the flooding. One resident indicated that the flood water reached an elevation of the back steps, but did not come into the structure.

8300 Address Zone

The 8300 zone demarcates the beginning of the Downtown Ellicott City section and consists predominantly of commercial properties. At the top end of the zone, the stream outfalls from a large, approximately 400 foot long culvert. This sectionexperienced damages due to the flood event. The flooding was primarily located within the principal channel and floodway area. This stream section is nearly entirely contained within stacked stone or block flood walls. Properties located immediately adjacent to or over the channel experienced basement flooding due to the water elevation cresting over one of the channel walls.In several locations, the southern stacked stone wall and the nearby properties are at a lower elevation, thereby resulting in the reported basement flooding.

Additionally, a channel constriction, or reduction in channel cross-sectional area, within the conveyance under Main Street most likely created backwater conditions through this reach exacerbating the flood elevations.

8200 Address Zone

Only several properties within the 8200 zone reported minor damages due to the flooding.Within this zone, the stream flows between two parking lots; a footbridge connecting the two parking lots was heavily damaged by the flood. One observer stated that flood waters impacting the upstream edge of the bridge sent geysers of water upward to the approximate height of the street lights. The parking lots flooded; however, the flood waters reentered the channel prior to flooding the majority of the first floor businesses located adjacent to the parking lots. A couple of businesses did experience minor flooding that necessitated carpet cleaning and/or removal.

8100 Address Zone

The 8100 zone experienced primarily basement flooding due to the elevated water levels within the primary creek channel. More than fifty percent (50%) of the channel through this zone is bridged by buildings, with stone flood walls on each side of the channel. An unnamed tributary to Tiber Branch confluences with Tiber Branch in this zone.Several properties reported five to six feet of water within the basement. Minor damages were reported, including problems such as general clean-up and HVAC servicing. Several properties reported that water entered through the front door, the result of excess stormwater within the street system.

8000 Address Zone

The 8000 zone is the lower end of the downtown section of historic Ellicott City. This zone experienced two types of flooding. The properties on the northern side of Main Street (Frederick Road) experienced excessive stormwater runoff from the steep gradient behind the buildings. The properties on the southern side of Main Street experienced primarily basement flooding due to the elevated water levels in the channel. The majority of Tiber Branch through this zone is bridged by buildings and roadways.

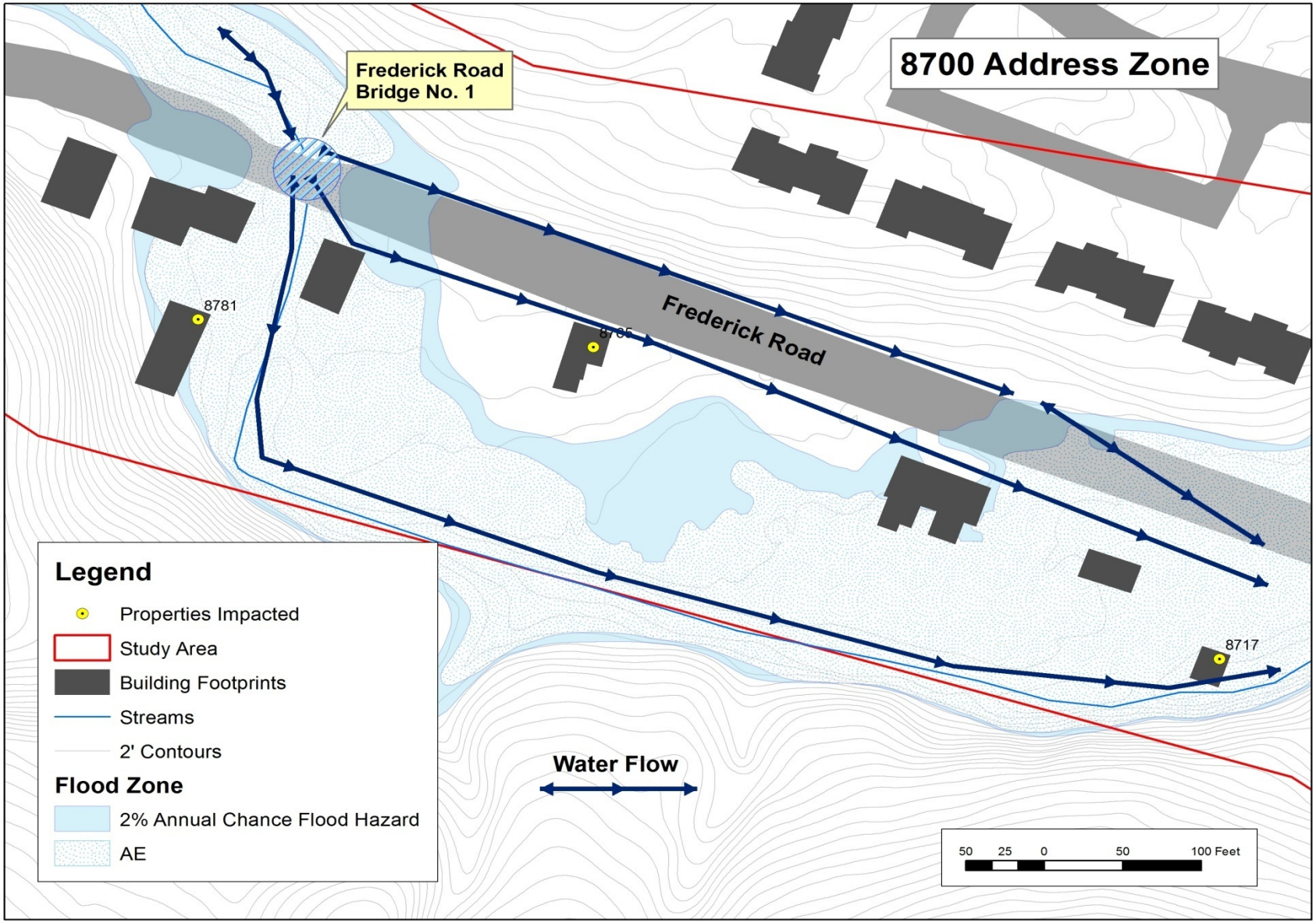
Stormwater runoff from the steep hillside behind the structures situated on the north side of Main Street resulted in flooding issues for some properties. Several properties experienced water seepage through the back wall of the structure. One property experienced a roof collapse; the roof was tied into the hillside and runoff collected on the roof causing the collapse.

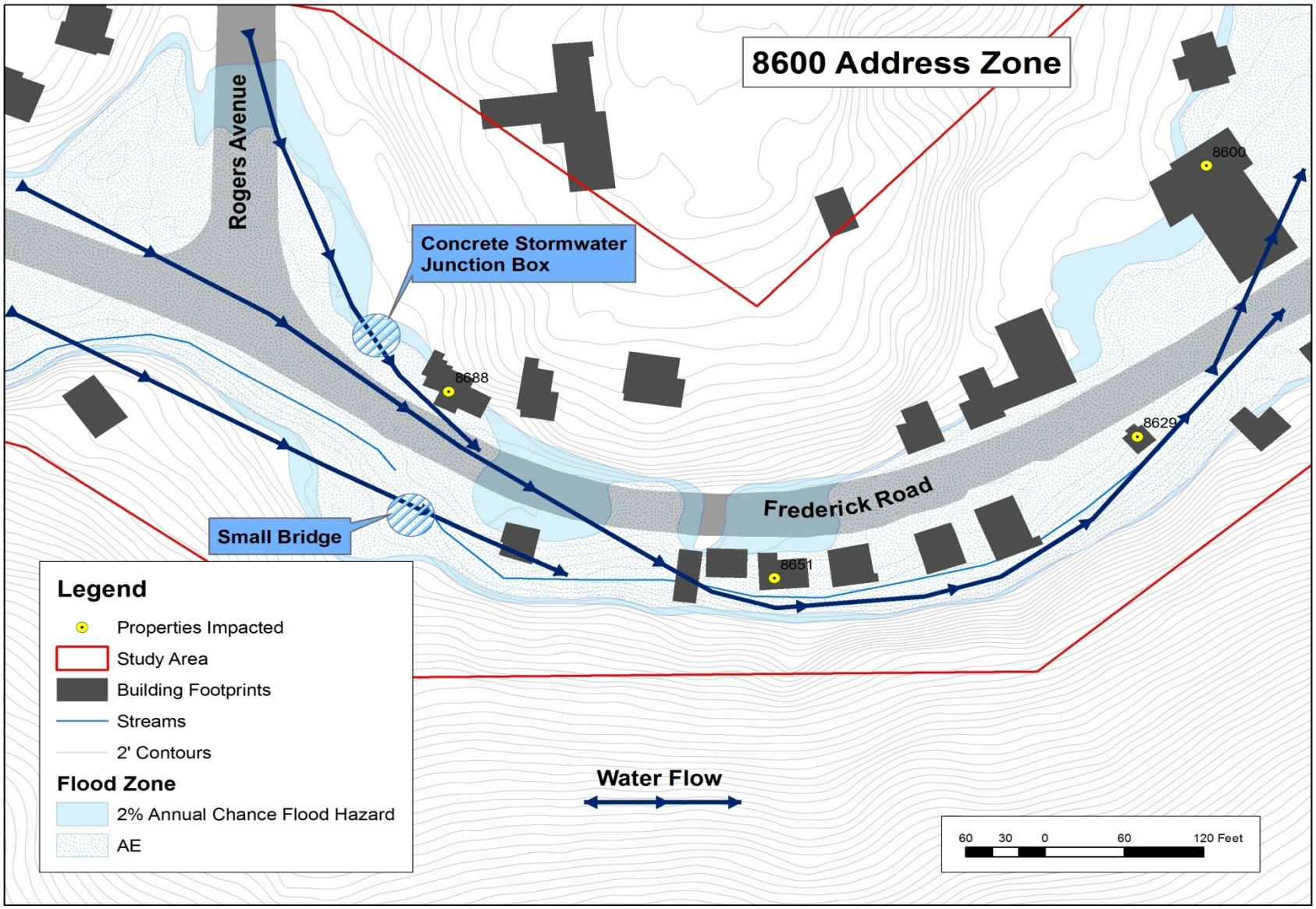
The properties on the south side of Main Street experienced basement flooding; several properties reported basement flooding with depths of four to five feet. Damages ranged from minor to extensive, depending on the location/elevation of the structure, and the contents and utilities located in the basement. One structure reported damage to a walk-in refrigerator, ice machine, hot water heater, plumbing, mortar, floor tile, and the foundation.

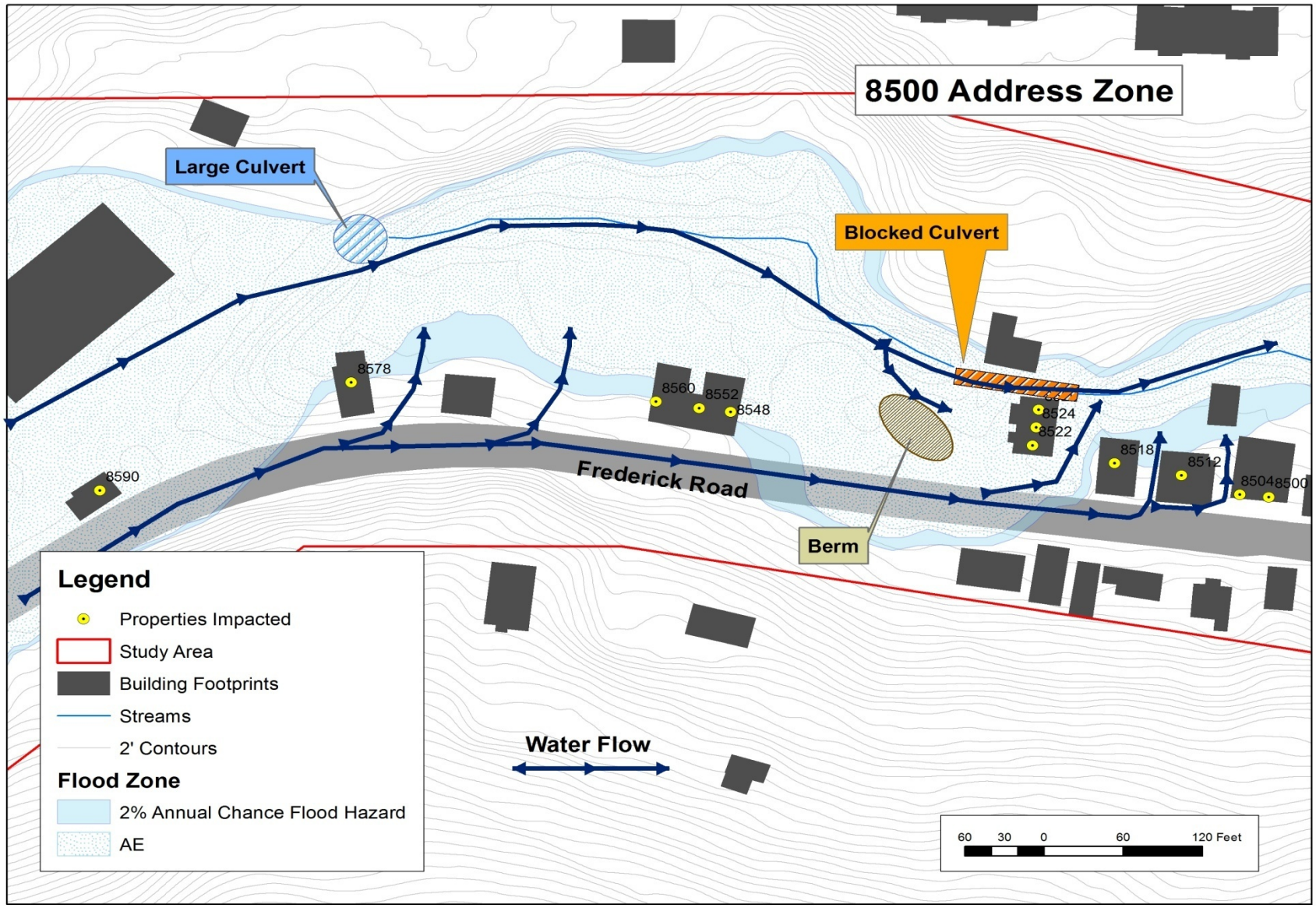
Valley Mede Zone

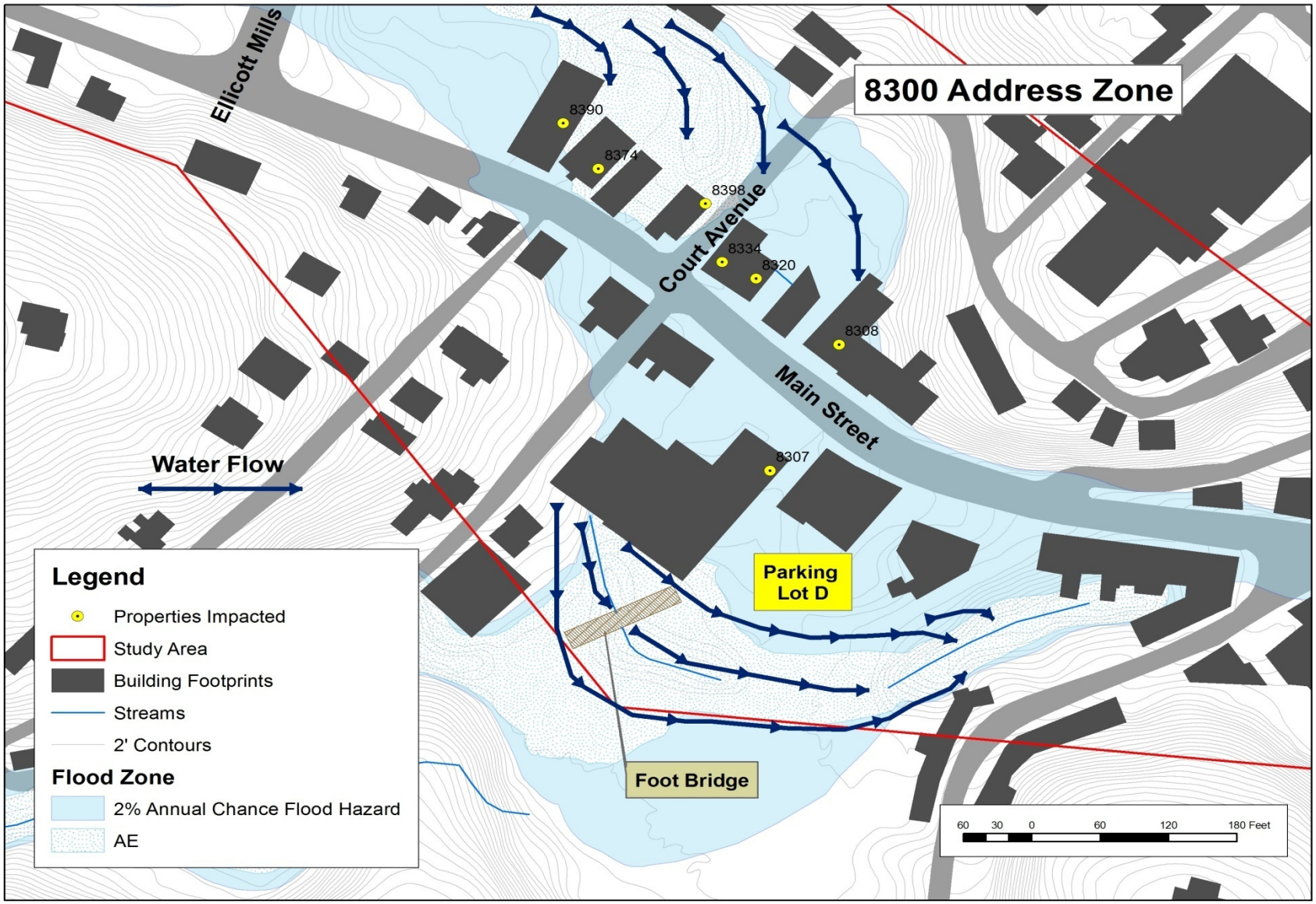
Residential properties adjacent to Plumtree Branch in the Valley Mede subdivision experienced significant flooding and damages. Flood waters rose quickly due to the heavy rainfall in a short duration of time. One resident indicated that within 45 minutes, the

flood water increased from cresting the channel banks to being six inches deep in the finished basement. This homeowner also stated that the water did not reach the elevation of the patio during Hurricane Agnes in 1973. One structure in Valley Mede experienced approximately four feet of water in the first floor of the dwelling, rendering the entire home uninhabitable. Culverted road crossings created backwater conditions until the flood breached the road crest. Several property and road wash-outs occurred when the flood water crested the road and re-entered the channel at the downstream culvert location. At one location, the wash-out damaged the utilities for the home, creating a loss of water, electric, and gas for several days.

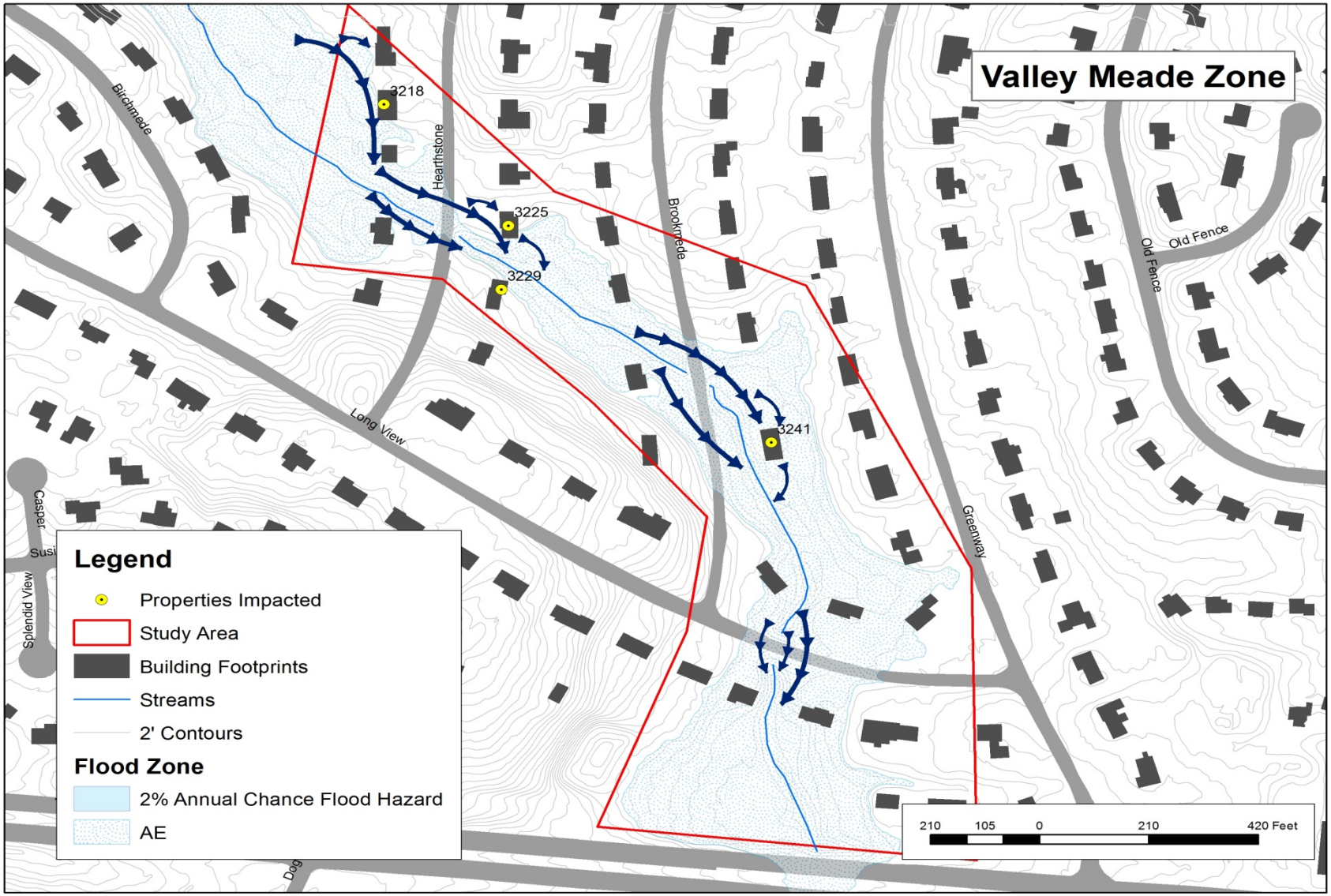

Frederick Road
Bridge No. 1
8700 Address Zone
Frederick Road
8781
8765
8717
Legend
Properties Impacted
Study Area
Building Footprints
Streams
2' Contours
Flood Zone
2% Annual Chance Flood Hazard
AE
Water Flow
50 25 0 50 100 Feet


8600 Address Zone
Rogers Avenue
Concrete Stormwater Junction Box
8600
8688
8629
Frederick Road
Small Bridge
8651
Legend
Properties Impacted
Study Area
Building Footprints
Streams
2' Contours
Flood Zone
2% Annual Chance Flood Hazard
AE
Water Flow
60 30 0 60 120 Feet


8500 Address Zone
Large Culvert
Blocked Culvert
8578
8560
8552
8548
8524
8522
8518
8512
8504
8500
8590
Frederick Road
Berm
Legend
Properties Impacted
Study Area
Building Footprints
Streams
2' Contours
Flood Zone
2% Annual Chance Flood Hazard
AE
Water Flow
60 30 0 60 120 Feet


Ellicott Mills
8300 Address Zone
8390
8374
8398
Court Avenue
8334
8320
8308
Main Street
8307
Water Flow
Parking Lot D
Foot Bridge
Legend
Properties Impacted
Study Area
Building Footprints
Streams
2' Contours
Flood Zone
2% Annual Chance Flood Hazard
AE
60 30 0 60 120 180 Feet


8100 & 8000 Address Zones
Main Street
8020
8026
8034
8044
8049
8055
8059
8069
8081
8085
8086
8090
8111
8113
8125
8129
Water Flow
40 20 0 40 80 120 Feet
Legend
Properties Impacted
Study Area
Building Footprints
Streams
2' Contours
Flood Zone
2% Annual Chance Flood Hazard
AE


Valley Meade Zone
3218
3225
3229
3241
Birchmeade
Hearthstone
Brookmede
Long View
Old Fence
Old Fence
Greenway
Casper
Splendid View
Legend
Properties Impacted
Study Area
Building Footprints
Streams
2' Contours
Flood Zone
2% Annual Chance Flood Hazard
AE
210 105 0 210 420 Feet

3.3 Conclusions

Information obtained during the data collection, compilation, and subsequent result portion of the Case Study indicate that flood mitigation activities and projects should be undertaken. Public outreach activities regarding flood insurance and flood proofing are highly recommended. In addition to public outreach, flood mitigation acquisition projects for the two properties that experienced first-floor flooding should be considered. Finally, citizen participation in flood mitigation activities and projects is essential. A partnership between the County and stakeholders should be formally established to work toward the ultimate goal of becoming a disaster-resistant community.

The *Stream Corridor Assessment* (SCA) completed in conjunction with this Case Study, details specific locations within the study area that are problematic and contribute to flooding. Problems such as: blockages resulting in impediment to flow within the stream channel, deteriorated flood walls, various sized culverts within the same stream reach, and overall maintenance issues. Recommendations regarding flood mitigation activities related to the stream are detailed within the SCA.

APPENDIX A: FLOOD EVENT LOG

SEPTEMBER 7, 2011

11:00 AM - Emergency Management was notified by the Department of Stormwater Management regarding bands of rain which were aligning in such hype-local impacts could be severe. The EOC was activated to Level 1.

11:59 - Patapsco Ellicott stream gauge reports water elevations begin to increase to 29 feet.

12:00 PM - Emergency Operations Center (EOC) activated at level 2.

1:18 - Road closures reported.

2:08 - Patapsco - Ellicott stream gauge flow peaked at an elevation of 125.41 feet. The Centennial stream gauge flow peaks at an elevation of 320.98 feet.

3:11 - Additional road closures reported.

3:55 - Road closed on Route 29 between Rt. 175 and Rt. 108. Main Street was also closed to the County line.

4:00 - Executive conference conducted:

- Ellicott City flooding is receding, still 2 feet below crest.
- Main Street continues to be evacuated.
- Many storm drains are now clogged.
- Main Street businesses have lost inventory and residential apartments are ruined.
- ~ 24 roads are closed.
- Main Street is still an issue for Police Dept.

- BGE considered a minor storm declaration; roughly 1800 persons are without power.
- New rainfall is about 1.5 - 2 hours away.
  - about 1" of rain expected
  - fast moving storm, may be intense, but localized
  - additional 1" of rain not expected to increase stream levels

4:10 - Local Declaration of Emergency was signed.

4:13 - MEMA notified of EOC Activation to Level 2.

4:29 - OEM message sent regarding EOC opening and calls already received for flooded streets.

4:34 - Roads closed: Rt. 1 and Little Patuxent Tollhouse at Old Frederick Rogers and Rt. 40.

4:38 - Patapsco River in Ellicott passed yellow alarm level; rose 2 feet in 15 minutes.

4:40 - As of 12:40 pm, Patapsco rose 3.3 ft in 40 min.4:48 - Rt. 144 at Rogers Avenue closed.

4:49 - SHA message: All westbound lanes of US 40 west of St. Johns Lane are closed due to high water.

4:51 - Rogers at Town and Country Blvd. closed.

4:52 - Brookmeade to be closed.

4:55 - Citizen on Main St. looking for info on evacuation.
4:57 - OEM states that alerts can be sent via TV, phone, or door-to-door, but does not anticipate doing this today.

5:01 - Citizen Services needed in EOC due to need to evacuate citizens from Valley Mede neighborhood.
5:07 - Spoke to Lois Mikkila about opening shelter at Ellicott Senior Center for evacuees.

5:09 - Two vans were sent to fire station 2 for transportation of evacuees to shelter.

5:11 - Fire and Rescue is operating a DOC out of station 2 and has additional swift water assets and rapid assessment teams.

5:13 - Two residents evacuated from the Valley Mede development.

5:15 - Sterling WFO - heaviest rains shifted East of Howard County.

- Moderate rainfall to continue for next 3 hours, accumulation of 1-2 inches.
- This is a slow moving band which should move out between 4-8 pm.

5:31 - Ligon Building is beginning to leak water onto the floor; facilities notified.

5:32 - Fire and Rescue evacuate Main Street from the 8200 to 8500 block; shelter offered at senior center.

5:33 - St. Johns Lane, barricade requested at High Point Road. Report from SWM, water is backed up from Patapsco River at Main St. and is flooding low point of road under railroad trestle.

5:40 - SHA's EOC activated.

5:41 - NWS - New Event: flash flood warning from 1:14 to 4:15 for Howard County.

5:42 - NWS - event extended to 6:30 pm.

5:44 - After consulting with Storm Water Management, Main Street to the County line was evacuated.

5:48 - MEMA and MSP notified that 15 roads are closed throughout the Eastern portion of the County, including Main Street.

6:00 - Brookmeade closed due to flooding.

6:02 - 5906, 5909-5913 Long View Drive in Valley Mede were evacuated. Electric and gas were shutoff to houses.

6:04 - St. Johns Lane, barricade requested at High Point Lane.

6:15 - Executive Conference Report

- Ellicott City received 4.5" of rainfall in past 24 hours.
- Still waiting on new rainfall, could rain until 11 pm.
- All stream gauges leveling off or going down.
- DPW - treatment plant issues are present, overflow. Mud is present but not clogging water paths, debris is being cleared.
- 22 roads still closed, Route 29 most concerning. Route 40 is cleared.
- Inspections reported an email was being created for citizens to send damage reports. 40 small business properties were damaged, majority are wet carpet and no electrical damage.
- Citizen Services to close at 8 pm if new rain event is not a threat.

6:20 - SHA advised no new road closures to add at this time.

6:26 - Shelter center changed to Bain Center.

6:39 - Police DOC, storm drains are blocked on Woodside Road at Route 108 Diamondback Drive.

6:48 - CSX Control Center was informed about possible flooding of the CSX line in the Harwood Park area.

7:08 - All of Route 40 is open, Frederick Road west is open, and all of Rogers avenue is open.

7:14 - Road closures: Main Street, east of Tollhouse, and Longview Road. Woodland Road is closed with barricades.

7:16 - Brookmeade Road is now open.

7:32 - Dispatched 2 vans, one handicapped and one 12-passenger, to firehouse #5 to assist with evacuation operations within Ellicott City.

7:51 - Staff on site monitoring water levels at the Centennial Park dam; water is one foot below red line level.

7:56 - Inquiries were sent regarding SWM predictions river levels.

7:59 - Barricades needed at Meadow Ridge in front of cemetery west of Route 1. Water is about 2.5 feet deep.

8:13 - SWM indicated Patapsco River level down 1.3 feet in past 30 minutes.

8:37 - All of Route 40 Frederick Road west of Rogers Avenue is open. Main Street from Old Columbia to County line is closed. Rogers at T&C is open, and Brookmead/Valley Mede area all open.

8:40 - Frederick Road (Main St.) from Ellicott Mills to Roger Avenue is closed and waiting on front-end loader to remove debris.

9:17 - Communicated with Fire Dept. about providing logistical support to businesses on Main Street.

9:30 - NWS: Areal flood warning from 5:25 pm to 11:15 pm for Howard County.

9:36 - Main Street between Rogers and Ellicott Mills is still closed.

10:17 – OEM message to group: flood warning until 11:15 pm, therefore EOC remains activated at Level 2 with the following departments: DEM, DFRS, HCPP, DPW, DPW Stormwater Management, DRP, DILP, HCPSS, CAO, Chief of Staff, PIO, and County Executive. Call center activated with 3 call takers, shelter is still activated at Bain Center in Columbia. Currently 25 roads closed, primarily in the East.

10:27 - Main Street at Toll House is opened; Route 40 at County line is opened.

11:11 - Fire DOC will send the rapid assessment team to Main Street for a thorough windshield survey.

11:18 - Possible HazMat situation reported - 8578 Frederick Street, Apt. C. Smells of petroleum.

11:19 - MEMA SEOC is standing down to routine level and will return to full activation at 0700 08 Sept. 2011.

11:21 - Dorsey Run Road, 15 inch sewer break, utilities working on repair.

11:25 - DILP requested the following email account to be created: “damagereports@howardcountymd.gov”.

11:41 - Dire DOC was asked to check 8578 Frederick Road for a possible HazMat incident.

11:43 - Logistics group was on Main Street assisting in pumping out businesses and significantly damaged occupants.

11:58 PM - Rapid Response Team assessed 8578 Frederick Road and needed to retrieve meter to check thoroughly.