

October 12, 2021

Raymond A Rogozinski, P.E.
Director of Public Works
City of Bristol Public Works Department
111 North Main Street
Bristol, CT 06010

Re: Flood Assistance
Reference Number 1003.001

Dear Mr. Rogozinski:

Resilient Land And Water, LLC (“Resilient Land & Water”) has developed the subject memorandum to describe appropriate sources of aid or support for residents that have suffered various types of flood damage, from riverine flooding (i.e., the Pequabuck River) to flooding caused by overwhelmed drainage systems.

Situation

Connecticut was adversely affected by several flood events that occurred in summer 2021. Specifically, flood events occurred on the following dates:

- T.S. Elsa - July 9, 2021
- T.S. Fred - August 19, 2021
- T.S. Henri - August 22-23, 2021
- T.D. Ida - September 1, 2021

However, not all four events caused damage in Bristol. Based on various reports, the rainfall associated with Storm Ida was the most damaging event in Bristol in summer 2021. According to the City, the type of damage typically experienced in Bristol is nonstructural and often does not exceed 50% value of the house. Damage could include the following:

- Flooding of basements from surface water
- Damage to stored materials in basements
- Damage requiring replacement of HVAC equipment in basement
- Basement flooding due to groundwater
- Basement flooding due to sewage backups
- Sewage backup into first floor living area
- Trees down on property
- Flooding of yards with or without erosion
- Flooding within first floor that damages contents but not the structure
- Damage to culverts that are in place to facilitate to access property/house (such as a driveway culvert)

Although the City has undertaken considerable steps to address methods of reducing flood damage by evaluating improvements in the Pequabuck River and Coppermine Brook watersheds, intense rain events nevertheless can cause flooding. Residents and business owners have reportedly requested information about how to receive financial assistance to address recent damage and minimize future flood damage. However, the appropriate sources of aid or support can often be difficult to identify.

Types of Assistance

Flood Insurance

Flood insurance can be purchased from the National Flood Insurance Program (NFIP) either directly, or through a variety of insurance companies. The Federal government has financial responsibility for underwriting losses. Flood insurance is available anywhere in a community – in or out of mapped floodplains – and changes in the NFIP (“Risk Rating 2.0”¹) will soon result in new calculations of premiums based on a number of factors.

The maximum limits of coverage available for a residence is \$250,000 for the building and \$100,000 for contents. Specific items covered can be researched in FEMA’s resources related to flood insurance². A property with a mortgage is required to carry flood insurance, as the insurance helps the lender protect its investment. The amount of coverage is determined by the lender, and whether the coverage includes the building or contents is also determined by the lender. If a mortgage has been paid, a property owner can drop flood insurance. However, carrying flood insurance is often advisable given the protections provided.

Damage from mold and/or mildew resulting from the after-effects of a flood is typically covered by flood insurance, but each case is evaluated on an individual basis. Mold/mildew conditions that existed prior to a flooding event are not covered. After a flood, the policyholder is responsible for taking reasonable and appropriate mitigation actions to eliminate mold and mildew.

Flood insurance does not cover basement improvements or items that are not necessary to make the home safe, sanitary, and functional. In other words, items in the basement that are *not* covered include carpeting, finished walls, floors, ceilings, furniture, or personal belongings that are kept in the basement. Necessary items are included under building coverage and some under contents coverage.

NFIP figures for a community are available from FEMA. According to the NFIP profile dated August 31, 2021, Bristol hosts 137 flood insurance policies. Total coverage is \$28,937,800 and the total annual premiums paid was \$272,604.

A total of 213 flood losses have been paid in Bristol. This is not the number of properties; some properties have filed multiple losses, so the number of properties with losses is lower than 213. However, the breakdown is not visible in the data table. Furthermore, the dates of payment are not provided by FEMA in the data table. To date, the total payout for losses in Bristol is \$3,573,886. This equates to an average payout of \$16,779 per loss.

¹ <https://www.fema.gov/flood-insurance/risk-rating>

² <https://www.floodsmart.gov/how/what-is-covered>

The former CCRPA Hazard Mitigation Plan (2016) reported that 32 repetitive loss properties were located in Bristol, with a total of 95 losses adding to \$1,594,955. Neglecting changes over the last five years, this demonstrates that losses submitted for repetitive loss properties are about 45% of total losses in Bristol whether calculated from the number of claims (95/213) or when calculated from the losses paid (\$1,594,955/\$3,573,886).

The NVCOG Hazard Mitigation Plan (2021) notes that the City reports 32 RL properties whereas FEMA's list from 2018 reports 26 RL properties. The discrepancy can be cleared up as needed by the City's floodplain manager through the completion of specific forms issued by FEMA to the City.

While the flood loss profiles for Bristol are not insignificant, the data shows that only a very small percentage of properties in the city (137 properties out of thousands) are carrying flood insurance and claiming losses to be paid under the NFIP.

- ***Recommendation #1: Given that flood insurance is the first line of defense in assisting property owners and residents with responding to flood damage, the City should promote a wider purchase of flood insurance.***

Homeowners Insurance

Flood damage is not covered by homeowners insurance policies. In this context, a flood is defined as water affecting more than one property where the ground surface is normally not submerged³. Examples could include an overflowing stream or river, a rapidly expanding pool of water along a road that cannot drain quickly, or sheet flow downhill along a slope into nearby basements.

Some flood coverage can be provided as part of some renters' insurance policies (i.e., USAA), but this is not standard practice and ultimately would not apply to property owners. Additionally, some types of water damage can be covered by homeowners insurance policies, such as a broken pipe, sewage backup, or sump pump failure. The specific details will vary, and a property owner should become familiar with the terms of his or her policy.

- ***Recommendation #2: Property owners should contact their homeowners insurance companies to inquire about add-on coverages such as sump pump failure.***

Not Covered by Insurance

If a flood occurs and adversely impacts a building that is insured with flood insurance, the owner may be able to claim a loss and seek reimbursement for damage to the building or contents. If a building is not insured with flood insurance, the owner cannot seek reimbursement for damage to the building or contents using homeowners insurance. In both cases – *with or without flood insurance* – damage to

³ The National Flood Insurance Program (NFIP) defines a flood as "A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties (at least one of which is the policyholder's property)"

property outside the building such as landscaping, a driveway, or a vehicle is not covered by insurance. However, flood damage to passenger vehicles is sometimes covered by auto insurance.

- ***Recommendation #3: Property owners should contact their auto insurance companies to inquire about covering flood damage to vehicles.***

FEMA Public Assistance (PA)

PA funding is available to municipalities when expenses are incurred during an event that is later declared a major disaster. If a severe event affects Connecticut and the declaration of a disaster is made, FEMA will specify which counties are eligible for PA reimbursement. If Hartford County is part of the region covered by PA, Bristol can participate. In order to obtain reimbursement under the PA program, the City of Bristol will need to compile detailed records of costs such as cleaning up trees after a wind event or repairing a washed-out road after a flood event.

Reimbursement for private property damage is not available from PA. Community costs are typically divided into the following categories allowed by FEMA:

- Emergency Work:
 - Category A: Debris removal
 - Category B: Emergency protective measures
- Permanent Work:
 - Category C: Roads and bridges
 - Category D: Water control facilities
 - Category E: Public buildings and contents
 - Category F: Public utilities
 - Category G: Parks, recreational, and other facilities

Perhaps of significant interest in Bristol, FEMA may determine that certain emergency protective measures conducted on private property are eligible under the PA Program if:

- The immediate threat is widespread, affecting numerous homes and businesses such that it is a threat to the health and safety of the general public;
- The municipality has legal authority to perform the work; and
- The municipality obtained rights-of-entry and agreements to indemnify and hold harmless the Federal government.

Situations where this may occur are generally limited to:

- Demolition of unsafe private structures that endanger the public
- Installation of fiber-reinforced sheeting to cover damaged roofs
- Provision of emergency access
- Pumping of flooded basements
- Pumping of septic tanks or decontamination of wells causing a pollution threat
- Residential electric meter repair
- Safety inspections

- Stabilizing a slope

The fourth item, pumping of flooded basements, is potentially a suitable tool that the City of Bristol can use to assist property owners will mitigating damage from floods.

We recommend that the City evaluate this possibility in the short-term. To be successful in reimbursement under PA, the City must include the following support documentation: a detailed explanation documenting the City's legal authority and responsibility to enter private property; the basis for the determination that a threat exists to the general public; and copies of the rights-of-entry and agreements to indemnify and hold harmless the Federal government. If the rights-of-entry and agreements to indemnify and hold harmless take time to develop, the City should begin looking into this soon, so they may be in place before the next severe storm.

- ***Recommendation #4: Take steps to ensure that pumping of flooded basements is eligible for PA reimbursement if a disaster is later declared.***

FEMA Individual Assistance (IA)

IA funding is available to properties owners in municipalities when exceptional individual expenses are incurred during an event that is later declared a major disaster. If a disaster affects Connecticut, FEMA will specify which counties are eligible for IA reimbursement. If Hartford County is part of the region covered by IA, Bristol individuals can participate. Unfortunately, IA is not a typical outcome for a flood disaster in Connecticut. Consider the following:

- The State's most recent disaster declaration for a flood (for the events of September 25, 2018) *did not include IA eligibility anywhere in the State*. Furthermore, Hartford County was not eligible for PA reimbursement for this event.
- Hurricane Sandy was the last time IA was available in Connecticut, but Hartford County was not included as an eligible area.

The last three flood events that resulted in the availability of IA in Hartford County were:

- T.S. Irene, DR-4023-CT, August 2011
- Nor'easter, DR-1700-CT, April 2007
- T.S. Floyd, DR-1302-CT, August 1999

More than ten years have passed since IA was available in Hartford County and, therefore, in Bristol. This demonstrates that long periods of time may occur between floods that are sufficiently severe for FEMA to make IA possible.

The specific types of assistance under the IA program are found within the following broad categories:

- Mass Care/Emergency Services
- Individuals and Households Program (IHP)
- Disaster Case Management
- Crisis Counseling Assistance and Training Program

- Disaster Legal Services
- Disaster Unemployment Assistance
- Voluntary Agency Coordination

We will focus here on IHP because that is the category typically employed in Connecticut during the rare occurrences that IA has been available, and is also the category that includes reimbursement for repairs. FEMA is clear in its statements that “IHP assistance is not a substitute for insurance and cannot compensate for all losses.” IHP assistance comprises two provisions: Housing Assistance and Other Needs Assistance (ONA):

- Housing Assistance may be provided in the form of financial assistance (funds provided to an applicant) or direct assistance (housing provided to the applicant by FEMA). Examples of financial assistance include lodging reimbursement, rental assistance, home repair assistance, and home replacement assistance. *The most important factor to understand is that the housing assistance part of IHP is for home repair services. This can include the foundation, walls, windows, roofing, heating systems, and utilities but will not fencing or landscaping.* In some cases, Housing Assistance may include access and egress, including privately-owned roads and bridges. This is a potentially intriguing use of IA, as flood insurance and homeowners insurance do not cover driveways. However, a person should never assume that IA will be available for access-related repairs.
- The ONA provision of the IHP provides financial assistance for disaster-related necessary expenses and needs that are not covered by insurance or provided by any other source. Some covered expenses are funeral assistance, medical assistance, childcare, assistance for moving, and assistance for cleaning. Personal property assistance is available if Small Business Administration (SBA) coverage does help (see Page 8 for more about SBA). Personal property assistance can help pay for things like appliances and bedding, but only for mobility-impaired residents. In general, ONA is rarely used and only nominally helpful in Bristol as presented below.

IA figures for the City of Bristol were accessed from the following FEMA data sets⁴:

- Housing Assistance Program Data for Owners
- Housing Assistance Program Data for Renters
- Registration Intake and Individuals Household Program

According to these data sets, the nor’easter of April 2007 resulted in 45 individual registrations in Bristol. A figure of \$27,078 was approved for the IHP, split into a figure of \$26,585 for Housing Assistance and a figure of \$492 for ONA. Renters’ assistance was *not* approved through IA for the April 2007 nor’easter. Without further details about how reimbursements were used, only broad conclusions can be made about the levels of individual assistance that each property may have obtained. Dividing \$27,078 by 45 properties, the amount per property averages \$602. This is significantly lower than the averages discussed on Page 2-3 for flood insurance payouts.

Detailed data were also available for T.S. Irene of August 2011. Approximately 115 owners were approved for \$434,416 in total damage, and 16 renters were approved for \$29,709 in total damage. The breakdown for Housing Assistance and ONA was not available for T.S. Irene as it was for the nor’easter

⁴ Data were not available for floods prior to the early 2000s.

of April 2007. Without details available, only broad conclusions can be made about the levels of individual assistance that each property may have obtained. Dividing \$434,416 by 115 owner-occupied properties, the amount per property averages \$3,778. While the per-property average after T.S. Irene is certainly larger than the \$602 per property after the nor'easter of April 2007, neither figure is significant relative to replacement of walls, floors, heating equipment, etc.; and they are significantly lower than the averages discussed on Page 2-3 for flood insurance payouts. Turning to the rental payouts, and dividing \$29,709 by 16 renters, the reimbursement per applicant is about \$1,800; this probably covers only a couple months of rent.

The bottom line regarding the IA reimbursements in the City of Bristol after the flood events of 2007 and 2011 is that they were likely much lower than the flood insurance reimbursements received by neighbors who carried flood insurance.

- ***Recommendation #5: Given that flood insurance can be accessed more frequently than IA reimbursements and tends to result in higher reimbursement, the City should promote a wider purchase of flood insurance (this is the same as Recommendation #1).***

In order to help the State of Connecticut facilitate eligibility under the IA program, a municipality such as Bristol must compile detailed records about specific private property damages. These records are then sent to DEMHS to aggregate with other communities and build a case for IA assistance in the affected counties. At the same time, DEMHS may conduct its own damage assessments. This is reportedly occurring in October 2021 to help determine whether IA should be available for the flood following T.S. Ida.

Increased Cost of Compliance (ICC)

ICC is available to property owners that have flood insurance. If a property owner receives a determination from the City's floodplain administrator that the home or building is substantially or repetitively damaged, the owner (flood insurance policy holder) may file a claim for ICC coverage. A policyholder may receive up to \$30,000 to help offset the costs to bring a home or business into compliance with floodplain management ordinance or regulations through elevation, floodproofing, etc.

- ***Recommendation #6: The City's floodplain manager should work with owners of damaged property to address ICC on a case-by-case basis, since the substantial damage threshold is likely not reached during most flood events.***

Commercial Flood Insurance and Business Interruption Insurance

Damage from flooding typically is not covered under a standard commercial insurance policy for a business. Some *private* insurance companies offer commercial flood insurance to small and medium-sized business owners and commercial buildings. Typical private flood insurance policies include the coverages offered by the NFIP with the additional option of business interruption coverage. With business interruption coverage, a business can be covered up to a maximum payout or reimbursement based on a set rate (\$ per day) for up to a maximum number of days.

Flood damage to vehicles owned by a business and used for business purposes would typically be covered by the vehicle insurance policies, as explained above for residential vehicles.

- ***Recommendation #7: The City's business outreach teams (i.e., a chamber of commerce and/or the Economic and Community Development Department) should be prepared to provide information about private insurance companies that can be contacted to purchase insurance.***

Small Business Administration (SBA) Disaster Loans

Businesses located in declared disaster areas, private nonprofit organizations, homeowners, and renters affected by declared disasters may be eligible for SBA loans. Loans can be used for losses not covered by insurance or FEMA IA. Losses can include physical damage or business interruption. As with PA and IA, the eligibility is tied to a declared disaster. A property must be in a declared disaster area to be eligible for SBA disaster assistance.

Homeowners may apply for up to \$200,000 to replace or repair a primary residence. Renters and homeowners may borrow up to \$40,000 to replace or repair personal property such as clothing, furniture, cars, and appliances. An important point is that proceeds from insurance coverage on a home or property will be deducted from the total damage estimate to determine the eligible loan amount. In other words, SBA loans are used for expenses in excess of flood insurance and other insurance reimbursements.

SBA can issue physical disaster loans of up to \$2 million to qualified businesses or most private nonprofit organizations. These loan proceeds may be used for the repair or replacement of real property, machinery and equipment, fixtures, and inventory. Like the homeowner assistance described in the preceding paragraph, the SBA Business Physical Disaster Loan covers disaster losses that are not fully covered by insurance.

- ***Recommendation #8: The City's outreach teams (i.e., the floodplain manager and the Economic and Community Development Department) should be prepared to provide information about SBA loans if a disaster declaration is activated.***

State Funds and Programs Available to Avoid Future Flood Damage

Two types of approaches are generally available to avoid future damages: developing capacity for response and securing funds to develop and administer programs to reduce future flooding. The following are ideas for future consideration.

- Response mechanisms to have in place prior to a flood could include acquiring more pump-out vehicles and securing mutual assistance MOUs to get help from other communities and/or organizations. If response can be deployed rapidly and across a wider area, then the duration of exposure of building materials and contents to water can be shortened, perhaps reducing the cost to recover. Various state and federal grant programs can be accessed for pump-out vehicles, such as the Assistance to Firefighters grant program administered by FEMA.

- The development of programs to pay for flood control and mitigation is currently receiving increased attention in the State of Connecticut. The State has taken an interest in the capacities of Flood and Erosion Control Boards, and has set aside resources to help set up stormwater utilities in Connecticut municipalities. The City of New London has recently implemented a stormwater utility that will collect fees from property owners and pay for stormwater management improvements that can reduce flooding caused by impaired or overwhelmed drainage systems. The Connecticut Institute for Resilience and Climate Adaptation (CIRCA) plans to administer a municipal assistance grant program in 2022 to help municipalities get started with stormwater utilities.

Summary

The following table provides a summary of coverage for each of the types of damage listed on Page 1.

Item	Coverage or Reimbursement Possible?					
	Flood Insurance	Homeowners Insurance	Commercial/ Business Insurance	FEMA PA*	FEMA IA*	SBA*
Flooding of basements from surface water	Yes	No	Yes, if included in a private policy	No	Yes	Yes
City's efforts to pump water from basements	No	No	No	Yes	No	No
Damage to stored materials in basements	No	No	Yes, if included in a private policy	No	No	Yes
Damage requiring replacement of HVAC equipment in basement	Yes	No	Yes, if included in a private policy	No	Yes	Yes
Basement flooding due to groundwater	Yes, if related to the flood event	No	Yes, if included in a private policy	No	Yes, if related to the flood event	Yes, if related to the flood event
Basement flooding due to sewage backups	Yes, if related to the flood event	Yes, if <i>not</i> related to a flood event	Yes, if included in a private policy	No	Yes, if related to the flood event	Yes, if related to the flood event
Sewage backup into first floor living area	Yes, if related to the flood event	Yes, if <i>not</i> related to a flood event	Yes, if included in a private policy	No	Yes, if related to the flood event	Yes, if related to the flood event
Trees down on property	No	Yes, depending on damage	Yes, if included in a private policy	No	No	No
Flooding of yards with or without erosion	No	No	Yes, if included in a private policy	No	No	No

Item	<i>Coverage or Reimbursement Possible?</i>					
	Flood Insurance	Homeowners Insurance	Commercial/ Business Insurance	FEMA PA*	FEMA IA*	SBA*
Flooding within first floor that damages contents but not the structure	Yes	No	Yes, if included in a private policy	No	Yes	Yes
Damage to culverts that are in place to facilitate to access property/house (such as a driveway culvert)	No	No	Yes, if included in a private policy	Depends on ownership and location	Possibly, if approved	No

*Disaster declaration is needed for IA, PA, and SBA

In summary, the approach to reducing and addressing flood damage may be complex and require a multi-faceted approach. At a minimum, the City should promote more widespread purchase of flood insurance, as the reimbursements from flood insurance will tend to exceed reimbursements from the FEMA IA program; and are not merely loans like the SBA programs.

Please contact the undersigned if you have any questions.

Sincerely,

David Murphy, P.E, Certified Floodplain Manager (CFM)