HURRICANE HELENE FLOOD RECOVERY AND COMMUNITY RESOURCES UPDATE WAYNESVILLE TOWN COUNCIL

OCTOBER 8, 2024

Presenters:

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COMMUNITY RESOURCES

Haywood County

Haywood County Emergency Operations Center

https://readyhaywood.com/

Coordinates with State, Federal, and Municipal organizations locally

Distribution Centers

Nonprofits and Churches

United Way of Haywood County: https://readyhaywood.com/

Coordinated Assistance of multiple churches and organizations at FUMC and Woodland Baptist.

COMMUNITY RESOURCES

FEMA:

Disaster loans available for businesses and residents in declared disaster areas to help communities recover and rebuild. Apply online or in-person:

https://sba.gov/hurricane-Helene; 800-659-2955 for businesses

DisasterAssistance.gov; 800-621-3362 for others

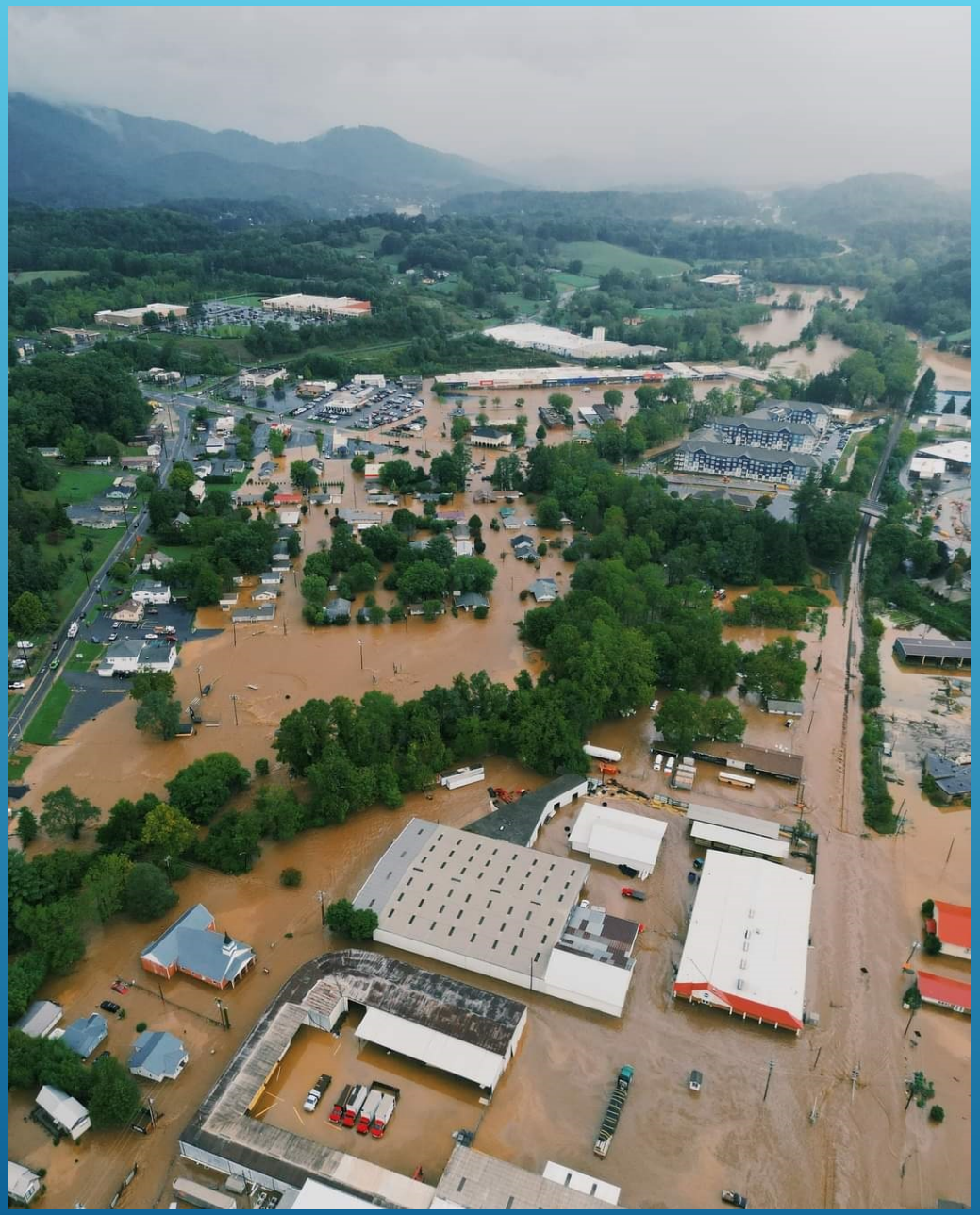
or email disastercustomerservice@sba.gov

1) Take photos of your damages home and belongings.

2) Make a list of damages

3) If you have insurance, you must file a claim with your insurance company.

4) Apply to FEMA through the FEMA app, website, or phone #

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POST-STORM DAMAGE ASSESSMENT

POST-STORM DAMAGE ASSESSEMENTS

Between September 30 (Monday) and October 7 (Monday):

- **137** affected structures were assessed for damages (still in progress)
- Areas prioritized in flood-affected areas based on observations during storm.
- Other areas of Town driven to verify damage/ no damage.
- 4 teams in the field initially with each team includes a building inspector, then we split up as needed.

WHY DO WE DO ASSESSEMENTS

- **Share community resources information**
- **Translate and convey information to Spanish-speaking residents**
- **Expedite permitting and occupancy / Identification of unsafe structures**
- **Create record of flood damage**
  - ✓ Can be utilized by property owner / insurance representatives to process claims.
  - ✓ Can be used in FEMA applications.
- **Provide on-the-ground documentation of flood elevations to identify**
  - ✓ Areas of FIRM map consistencies/inconsistencies
  - ✓ Areas of concern and potential mitigation efforts

WHY DO WE DO ASSESSEMENTS

- **Requirement** for communities participating in the federally administered National Flood Insurance Program (NFIP). Local officials, usually building department officials or floodplain managers, are responsible for making this determination (FEMA.gov).
- Ensure that substantially damaged **structures are properly repaired** in compliance with floodplain regulations to safeguard both the properties and safety of individuals.

DAMAGE ASSESSMENT FORMS

SDE Residential Worksheet

Community Identification Number (CID) _____ **Inspector Name** _____
Team # _____ **Photo #** _____ **Date** _____

Latitude: _____ Longitude: _____

Street Address _____
City, State, Zip _____
County _____

STRUCTURE ATTRIBUTES

Residence Type: ◯ Single Family Residence ◯ Town or Row House ◯ Manufactured House

Story: ◯ One Story ◯ Two or more stories

Foundation: ◯ Continuous Wall w/Slab ◯ Basement ◯ Crawlspace ◯ Piles ◯ Slab-on-grade ◯ Piers and Posts

Superstructure: ◯ Wood-Framed ◯ Steel-framed ◯ Common Brick ◯ Masonry ◯ Insulated Concrete Forms (ICF)

Roof Covering: ◯ Shingles – Asphalt, Wood ◯ Metal (Standing Seam) ◯ Clay Tile ◯ Slate

Exterior Finish: ◯ Siding or Stucco ◯ Brick Veneer ◯ Exterior Insulated Finishing System (EIFS) ◯ None – common brick

HVAC System: ◯ None ◯ Heating and Cooling

Quality: ◯ Low ◯ Budget ◯ Average ◯ Good ◯ Excellent

Depreciation Rating:
◯ 1 - Very Poor Condition
◯ 2 - Requires Extensive Repairs
◯ 3 - Requires Some Repairs
◯ 4 - Average Condition
◯ 5 - Above Average Condition
◯ 6 - Excellent Condition

Information Exclusively for Substantial Damage Estimate Assessments

Year of Construction: _____

Date Damage Occurred: __/__/_____

Cause of Damage:
◯ Fire
◯ Flood
◯ Flood and Wind
◯ Seismic
◯ Wind
◯ Other

Duration of Flood: ____ ◯ Hours ◯ Days

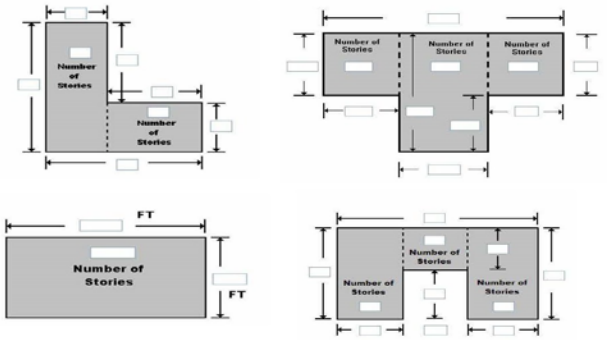
Depth of Flood Above Ground: _____

Depth of Flood Above 1st Floor: _____

ELEMENT PERCENTAGES

Foundation	____%	**Floor Finish**	____%
Superstructure	____%	**Plumbing**	____%
Roof Covering	____%	**Electrical**	____%
Exterior Finish	____%	**Appliances**	____%
Doors and Windows	____%	**Interior Finish**	____%
Cabinets & Countertops	____%	**HVAC**	____%

DIAGRAM w/ MEASUREMENTS and NUMBER OF Stories



Forms were provided by the NC Department of Public Safety, Division of Emergency Management

DAMAGE ASSESSMENT FORMS

Basic Flooding Model Assumptions:

1) Medium height freshwater flooding; limited duration. No high-velocity action; no wave action.
2) A 1-story house (without a basement) is used for this example house to establish the Categories of Work percentages of total costs.

			Damage Threshold			
Foundation			**0-25%**	**25-50%**	**50-75%**	**Over 75%**
Description	Continuous perimeter foundations, footings, and piers for internal beams and floor loads. Footing depth averages between 30 inches and 42 inches below ground level. Materials include unreinforced cast-in-place concrete, unreinforced masonry or concrete masonry units (CMUs), concrete slab on grade, or raised slab construction.	Threshold Markers	Water level does not rise to the level of the bottom of the first floor of the structure.	Water level rises just above first floor level.	Water level is 4-7 feet against the outside of the building.	Water level is 7 feet or higher against the outside of the building.
			No scouring at the footings.	Limited scouring at the footings.	Limited scouring at the footings. Soils are saturated and unstable	Limited scouring at the footings. Foundation is notably cracked and/or displaced. Structure has been knocked off its foundation.
			Some undermining but no visible cracking at concrete slab.	Soils are saturated.	Cracks noted on or along the foundation walls.	Portions of the foundation are damaged or missing
				Undermining of the concrete slab, especially at corners - hairline cracks only.	Significant undermining of the concrete slab – significant cracking is visible.	Significant undermining of the concrete slab - major cracking and separation of the concrete slab.
		Common Damage	Short-term inundation to limited heights. Limited scouring and erosion - low flow and low velocity floodwaters. No noticeable cracking of the masonry or displacement of the foundation walls.	Short-term inundation - Foundation is inundated with flood waters but for a limited duration. Limited scouring or undermining of the foundation or footings is found. Minor cracking from some settlement but no displacement, heaving or discontinuities of the structural support systems.	Floodwaters extend over the top of the foundation system - significant inundation for over 12 hours. Some cracking of the masonry/concrete foundation walls. Some damage to the foundation wall from debris or settlement noted.	Settlement noted at the footings, due to erosion or unstable soils. Foundation wall damage – sections of the walls are cracking, displaced, and missing, causing an inherent instability to the support for the house. Use caution when approaching or entering the house.
	Special Considerations for Coastal/High Velocity Floods		**Coastal floods may show more evidence of scouring at the supports - the foundation system may be better designed to resist this scouring action.** **High velocity floodwaters may create erosion/scouring that the building has not been designed to resist.**			

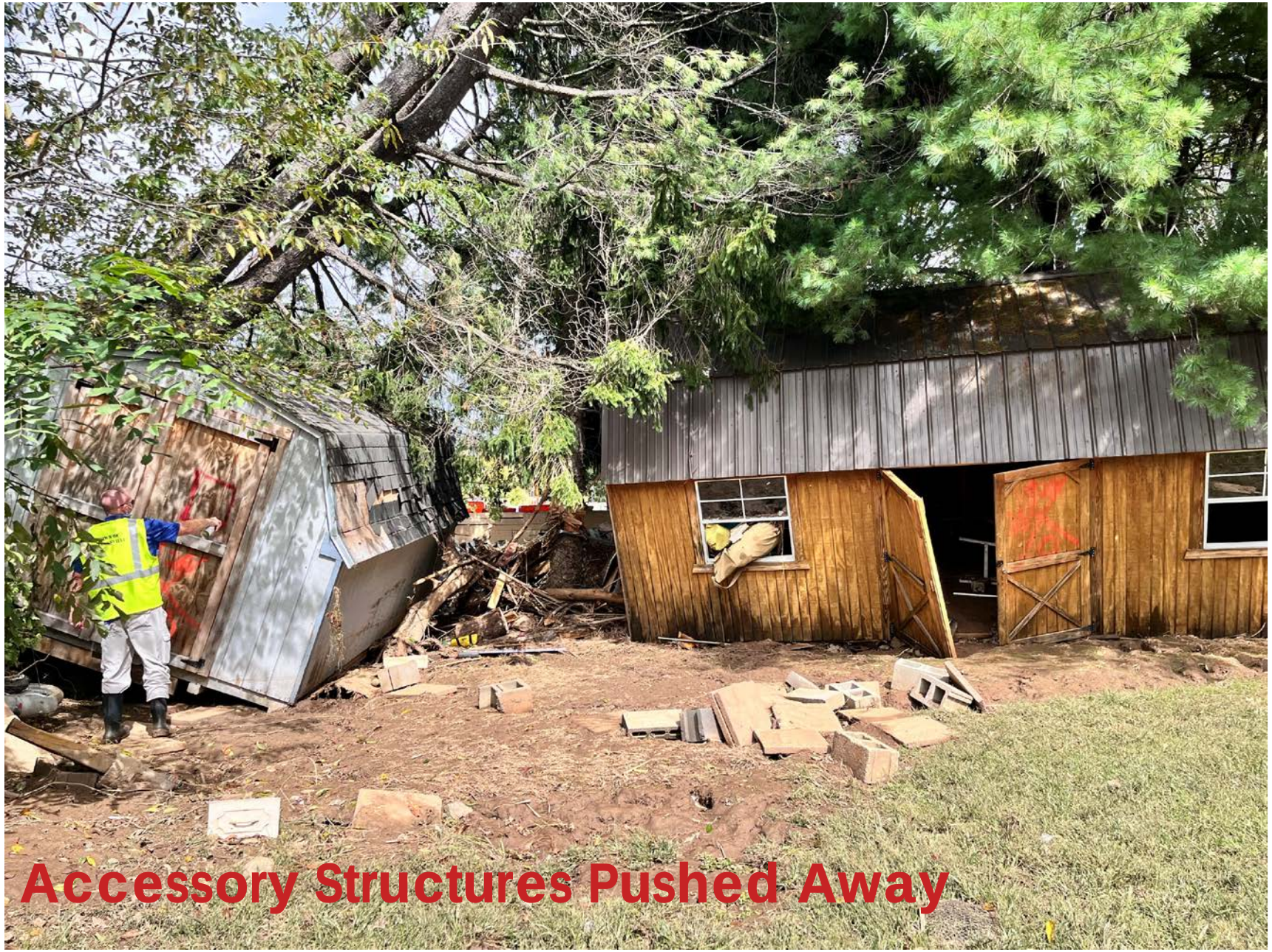
Forms were provided by the NC Department of Public Safety, Division of Emergency Management


High Water Marks


PASSION
EYES


DEPOT
240 Depot Street
321


Mud, Sediment

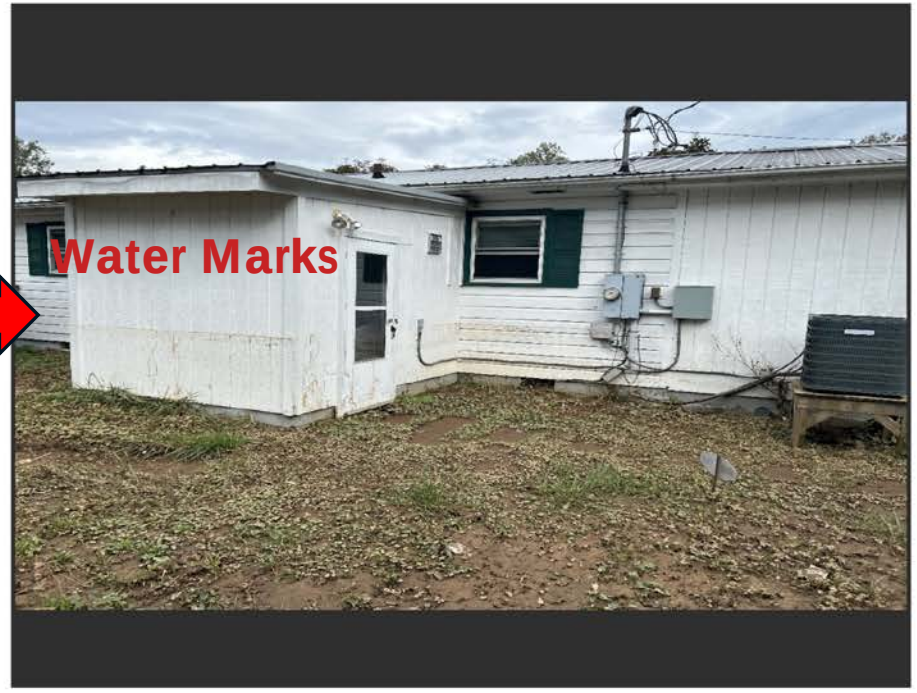

Accessory Structures Pushed Away

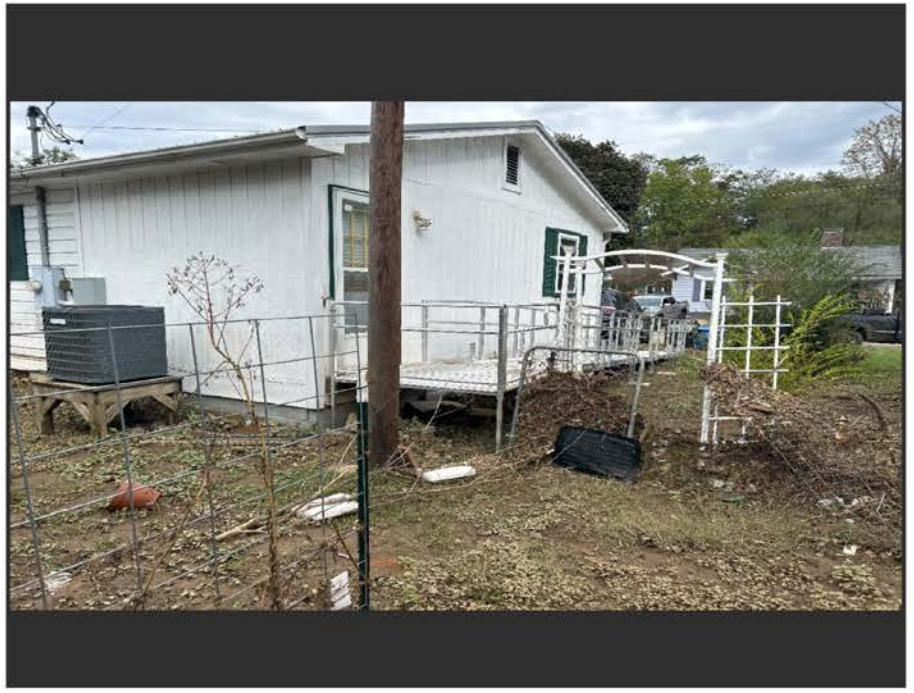
Mud, Sediment


High Water Marks


Undermined Foundations

High Water Marks





POST-STORM DAMAGE ASSESSEMENTS

So far, the assessments took place in the following areas:

- Dellwood City area
- Smathers and Sulphur Springs areas
- Oakdale Rd
- Frog Level
- Waynesville Plaza

This week our teams are doing assessments in Hazelwood and Westwood Circle. Next are South Main and Waynesville Country Club areas. Then Camp Branch and Lickstone.

POST-STORM DAMAGE ASSESSEMENTS

Out of the **137** assessed structures so far:

- **103** structures were residential, and **34** were non-residential.
- **12 structures (8.8%)** were determined to be substantially damaged (50% or more of the market value) and will need to comply with floodplain requirements during reconstruction (such as elevate the buildings).
- **18 structures (13%)** sustained damage ranging from 40% to just under 50%.
- **16 structures (11.7%)** sustained damage ranging from 30% to just under 40%.

POST-STORM DAMAGE ASSESSEMENTS

Data indicates that:

- 46 structures (33.5%) of those assessed experienced damage of at least 30%.
- 58 structures (42%) had water marks of 3 ft and higher
- Two highest watermarks were 6' (Rebe St.) & 5.5' (Harris St.)
- Properties built to BFE + 1' in accordance with floodplain regulations suffered less damage.
- Pre-Floodplain map and regulations structures (built prior to 1983) had most damage.

POST-STORM DAMAGE ASSESSEMENTS

Out of 137 assessed structures:

- **131 (95.6%)** were in the regulatory 100-year floodplain
- **6 (4.4%)** structures were **outside** of the regulatory 100-year floodplain

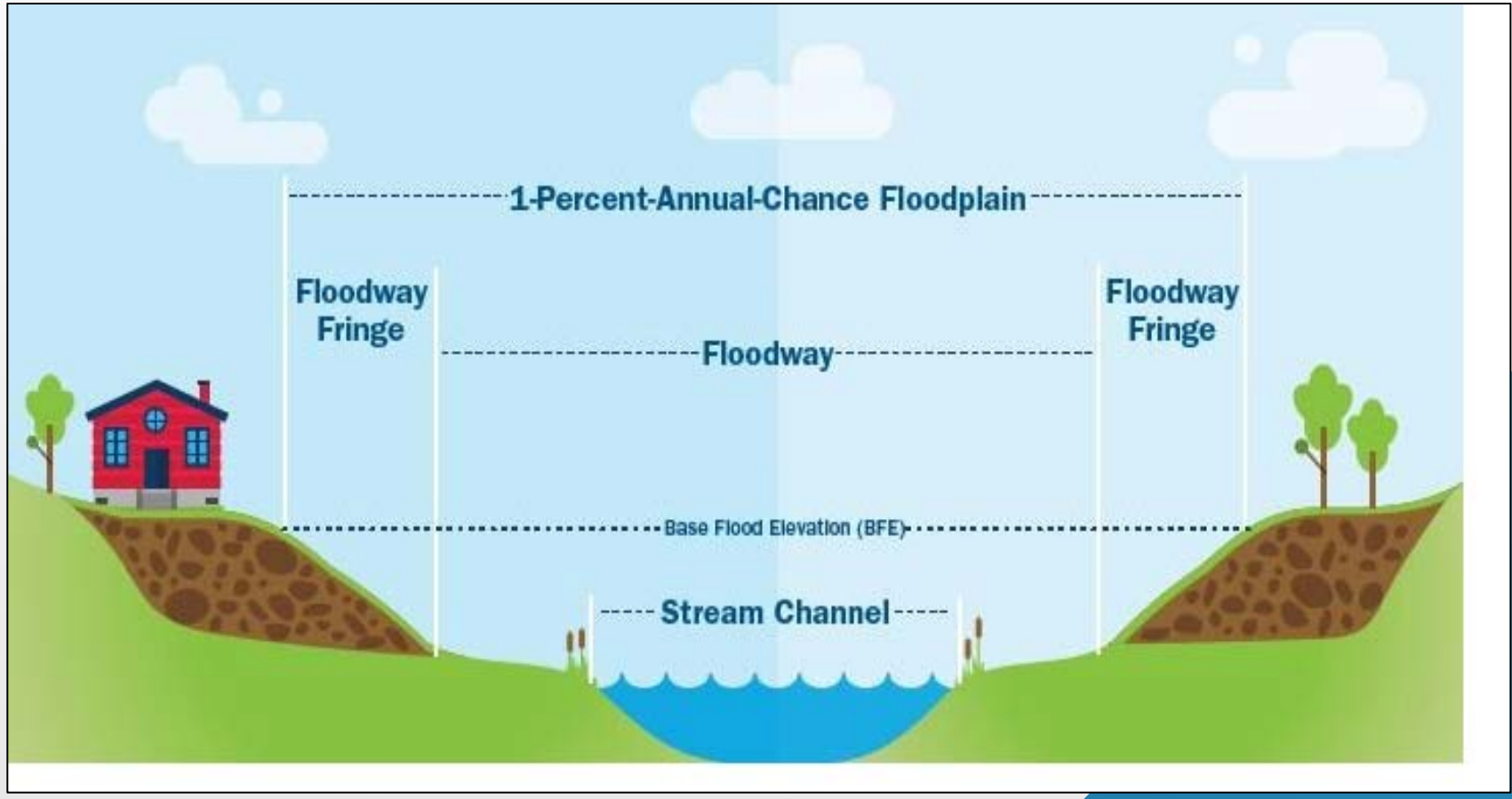
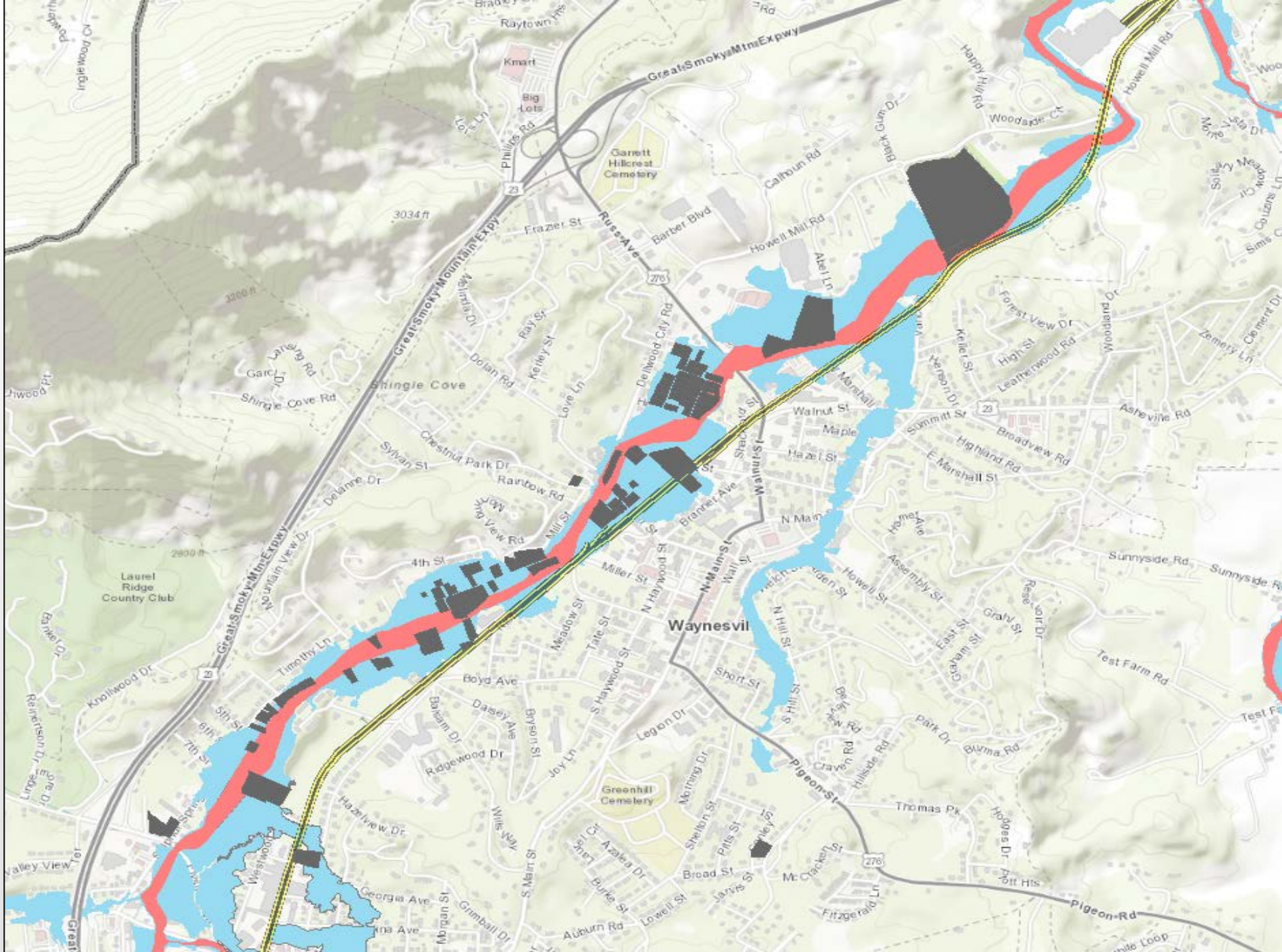
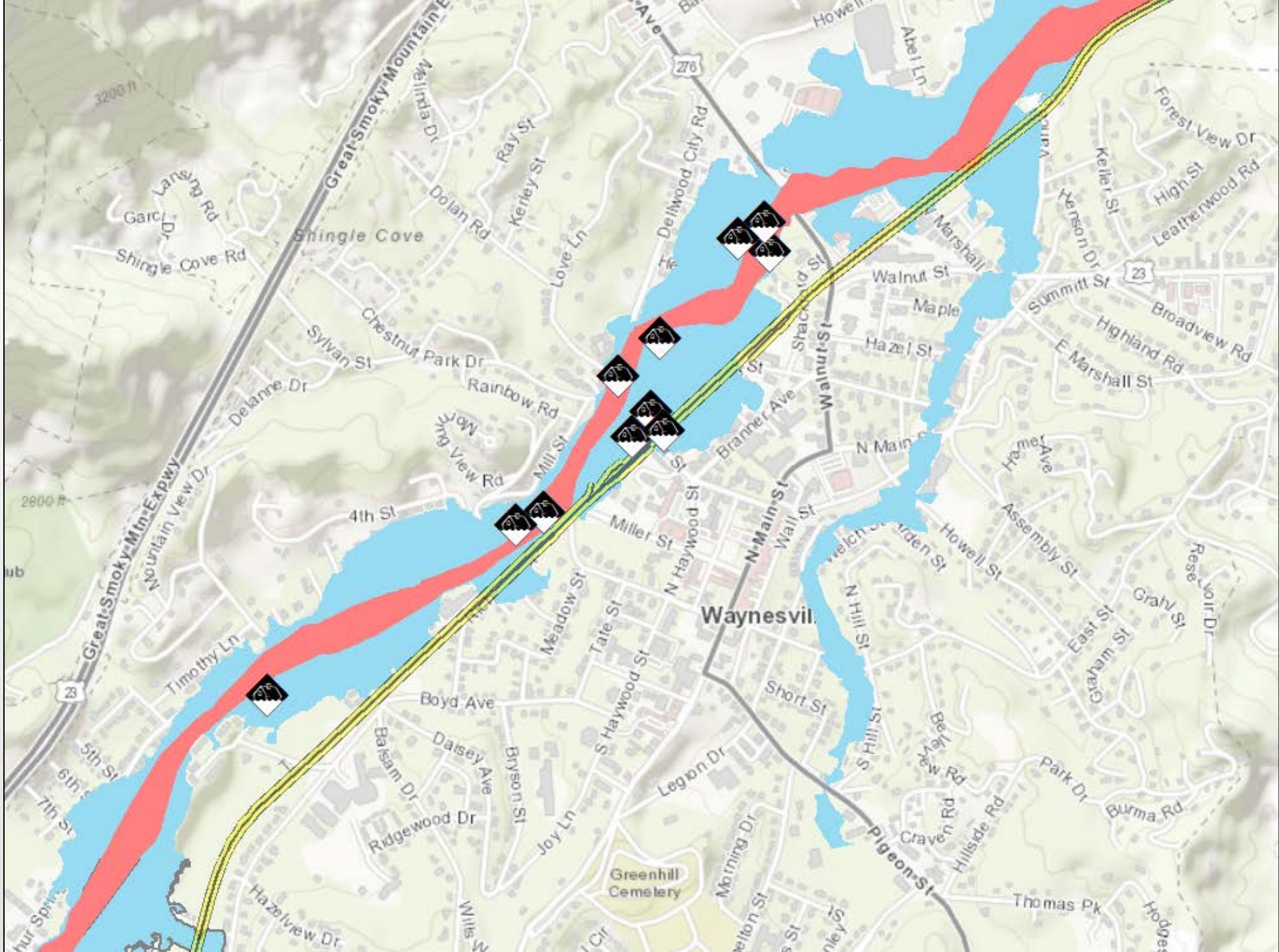


Image by Tulsa Engineering and Planning

STRUCTURES THAT SUSTAINED FLOOD DAMAGE



SUBSTANTIALLY DAMAGED STRUCTURES



SUBSTANTIALLY DAMAGED STRUCTURES

- **All 12 Substantially Damaged structures were in the 100-year floodplain, and 4 of them in the floodway.**
- **Substantially damaged structures had water marks ranging from 1 to 5 ft.**
- **Substantially damaged structures must be brought into compliance with flood elevations or with flood proofing.**

RECOMMENDATIONS

- Increase the freeboard from 1 ft above the base flood elevation to 3 ft
  {*Freeboard means the building height added to the Base Flood Elevation (BFE) from the ground (Example: elevated slab, crawlspace, or garage on the first level).}*

- Temporary policy to allow people with damaged homes to temporarily use FEMA trailers, campers, travel trailers or RVs, while their homes are being repaired.

- Pursue opportunities to improve historic buildings as part of repair.