



Climate Resiliency

Presented by

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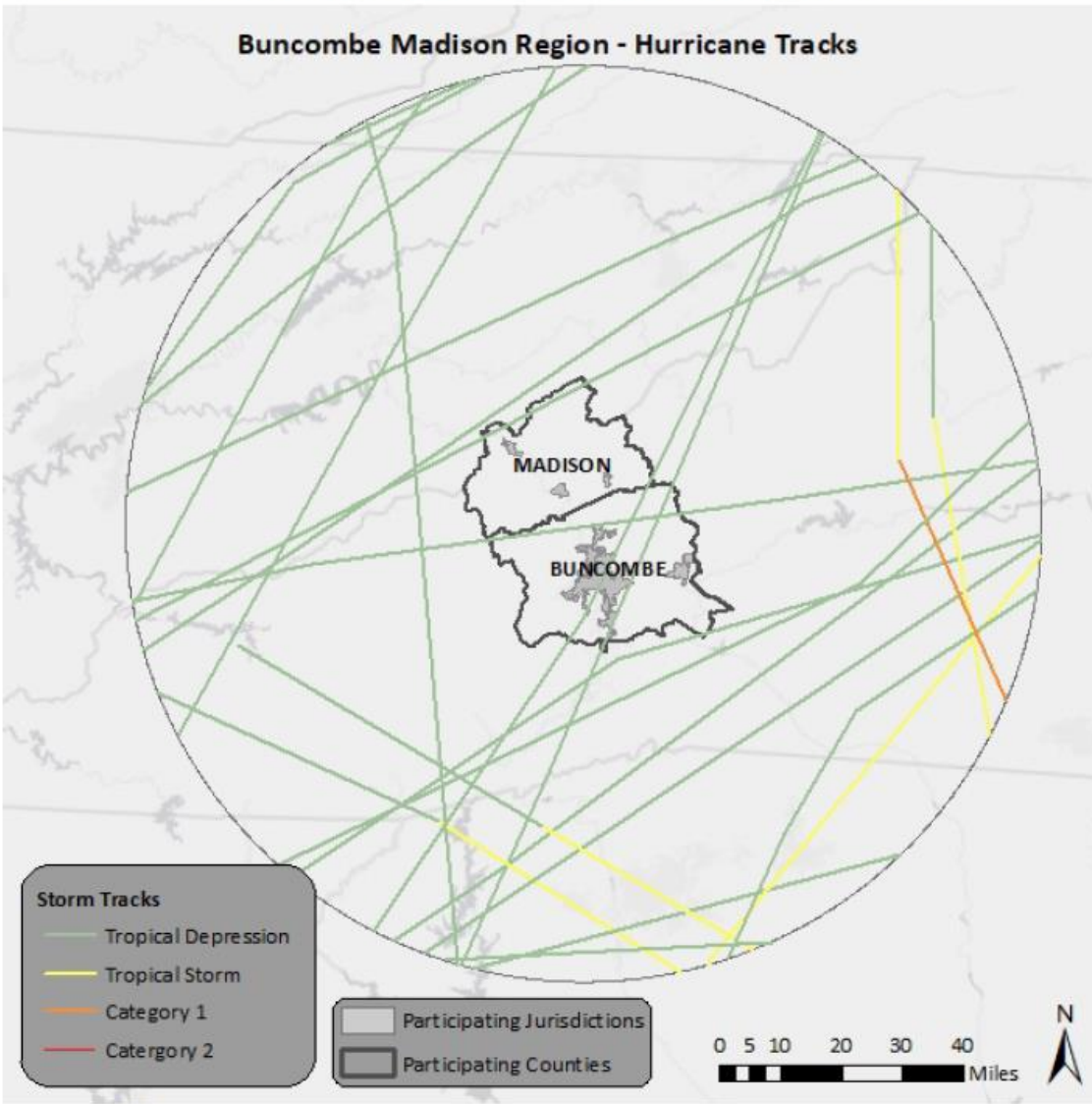


Main Risks and Vulnerabilities

- ✓ Excessive rainfall/flood events inclusive of tropical systems.
- ✓ Landslides
- ✓ Wildfire
- ✓ Private infrastructure (both a risk and vulnerability)

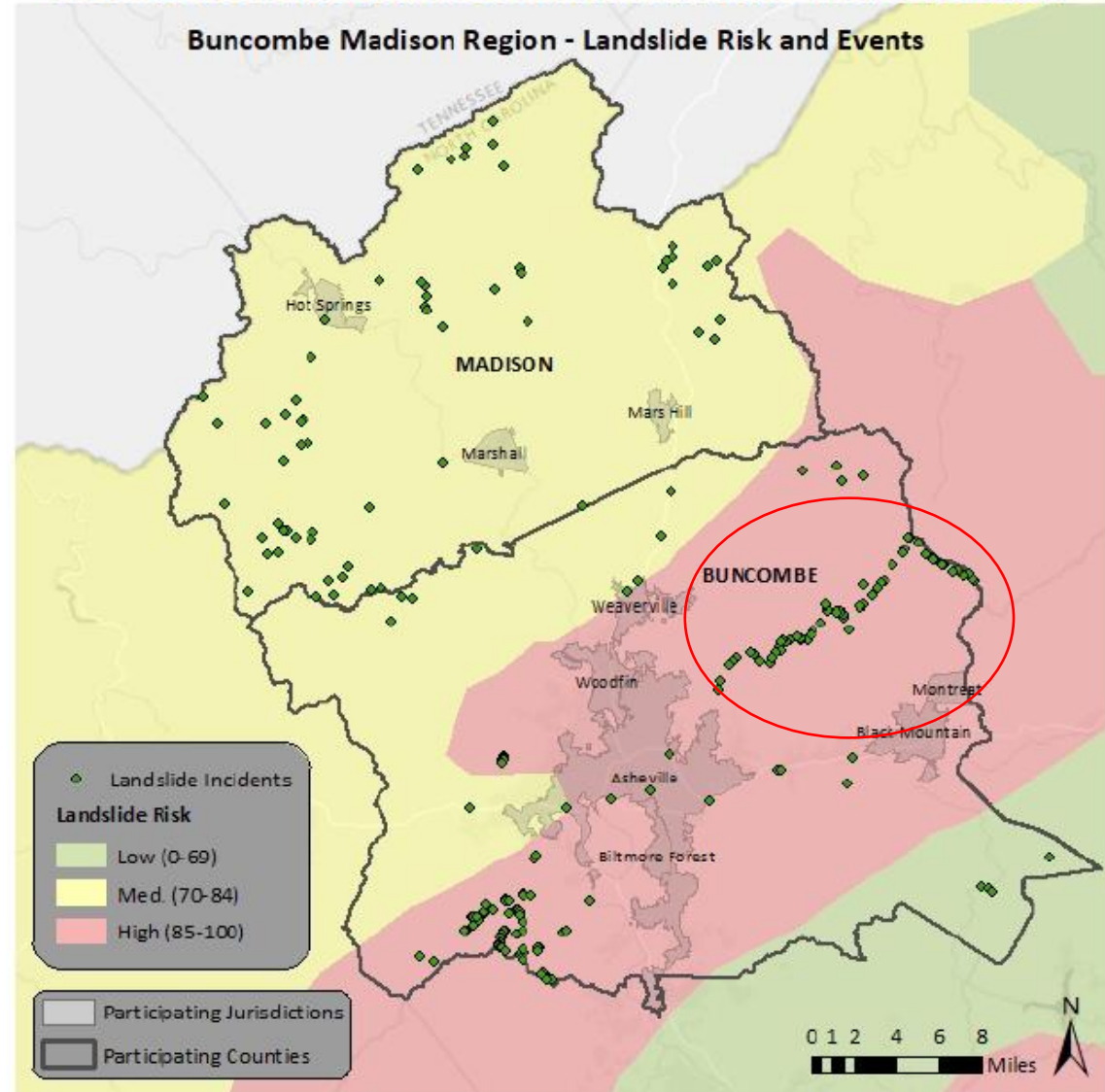


FIGURE 5.4: HISTORICAL HURRICANE STORM TRACKS WITHIN 75 MILES



Source: National Oceanic and Atmospheric Administration; National Hurricane Center

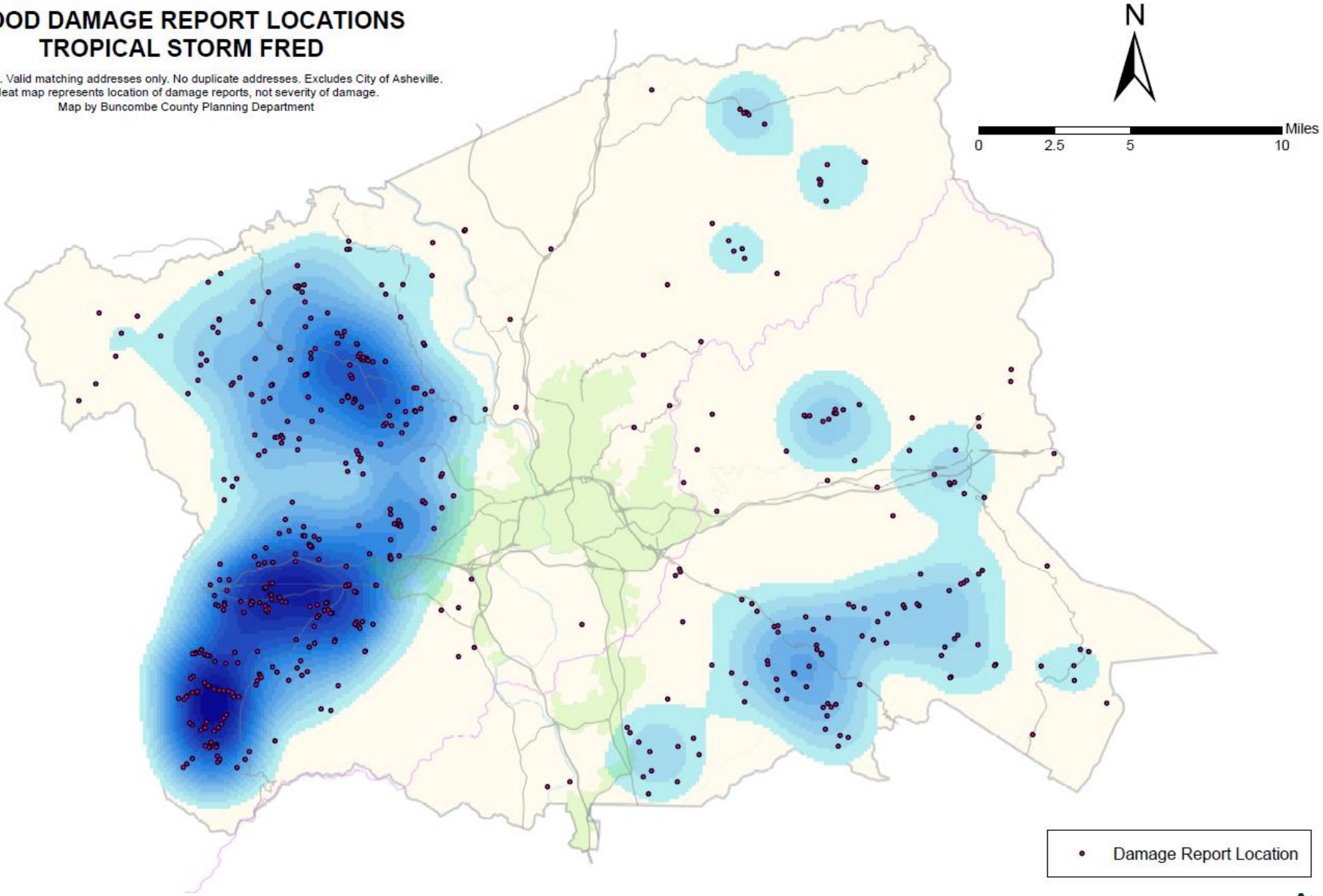
FIGURE 5.11: LANDSLIDE SUSCEPTIBILITY AND INCIDENCE MAP



Source: United States Geological Survey

FLOOD DAMAGE REPORT LOCATIONS TROPICAL STORM FRED

As of 8/30/21. Valid matching addresses only. No duplicate addresses. Excludes City of Asheville.
Heat map represents location of damage reports, not severity of damage.
Map by Buncombe County Planning Department



• Damage Report Location



TABLE 6.15: ESTIMATED EXPOSURE OF PARCELS TO THE FLOODING HAZARD

Location	1% Annual Chance of Flooding (100-year)			0.2% Annual Chance of Flooding (500-year)		
	Approx. # of Parcels	Approx. # of Improved Buildings	Approx. Improved Value of Buildings	Approx. # of Parcels	Approx. # of Improved Buildings	Approx. Improved Value of Buildings
Buncombe County	8,032	5,536	\$2,277,237,100	8,989	6,279	\$2,438,832,200
Asheville	2,357	1,748	\$832,942,600	2,839	2,134	\$925,139,700
Biltmore Forest	11	8	\$9,339,500	11	8	\$9,339,500
Black Mountain	431	283	\$142,834,900	488	328	\$151,433,600
Montreat	49	33	\$43,800,500	59	42	\$49,634,500
Weaverville	48	32	\$7,821,700	60	44	\$10,320,500
Woodfin	126	84	\$19,173,200	158	103	\$22,434,400
Unincorporated Area	5,010	3,348	\$1,221,324,700	5,374	3,620	\$1,270,530,000
Madison County	2,951	1,441	\$128,178,642	3,134	1,538	\$135,483,744
Hot Springs	126	58	\$5,131,789	158	85	\$6,941,024
Marshall	256	169	\$15,585,708	276	176	\$16,030,974
Mars Hill	45	29	\$4,850,662	46	30	\$5,006,712
Unincorporated Area	2,524	1,185	\$102,610,483	2,654	1,247	\$107,505,034
Buncombe Madison Regional Total	10,983	6,977	\$2,405,415,742	12,123	7,817	\$2,574,315,944

Source: FEMA DFIRM



Private infrastructure damage – TS Fred



FIGURE 5.13: DAM LOCATION AND HAZARD RANKING

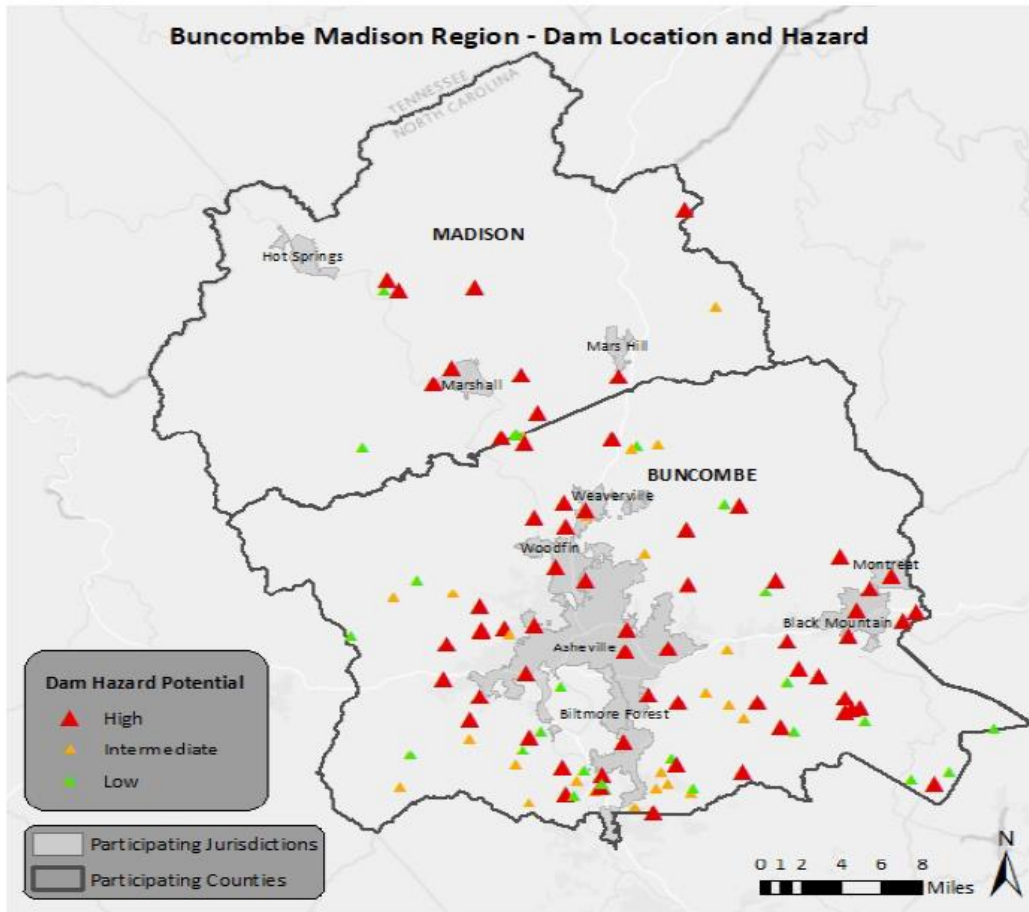


FIGURE 5.19: HISTORIC WILDFIRE EVENTS

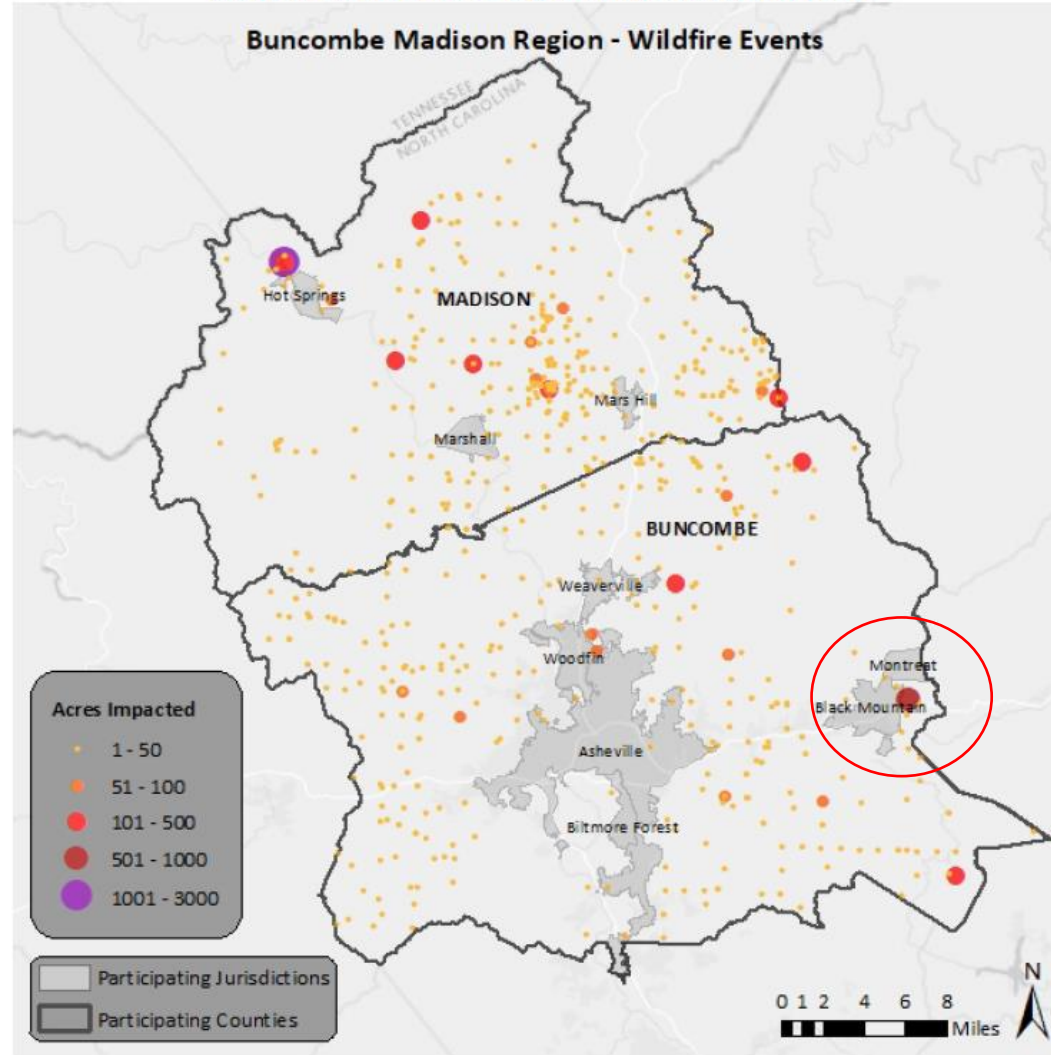


TABLE 8.2: BUNCOMBE MADISON REGIONAL MITIGATION GOALS

	Goal
Goal #1	Incorporate hazard mitigation into the planning process of each jurisdiction and continue to carry out hazard mitigation by seeking funding when available.
Goal #2	Evaluate, strengthen, and enforce ordinances.
Goal #3	Increase and enhance public education and awareness regarding disasters and hazard mitigation.
Goal #4	Address stormwater management and impervious surface issues.
Goal #5	Continue participation in the National Flood Insurance Program and investigate participation in the NFIP's Community Rating System.
Goal #6	Conduct future development (including infrastructure) in a way that protects human life and property through management of natural features such as floodplains and wetlands and avoids development in known hazard areas. This will also reduce the risk to emergency workers.
#7	Ensure that population growth does not exceed the capacity of evacuation routes.
#8	Protect existing structures through retrofitting or other means.
#9	Enhance the community's capability through the use of mutual aid agreements and sharing of resources at the county and regional level.
#10	Ensure that community officials are well-educated and aware of existing resources, regulations, and procedures related to disasters.
#11	Maintain and monitor the current plan and renew and revise as necessary.



Mitigation Efforts Build Resiliency

High (recommended priority area)

- Community Rating System (CRS)
- Floodplain Management

Med (build upon existing plan(s) or strengthen)

- Open Space Management

Low (strong ordinance(s) in place with modifications suggested)

- Stormwater Management – the most popular ordinance of all
- Steep Slope and Protected Ridges

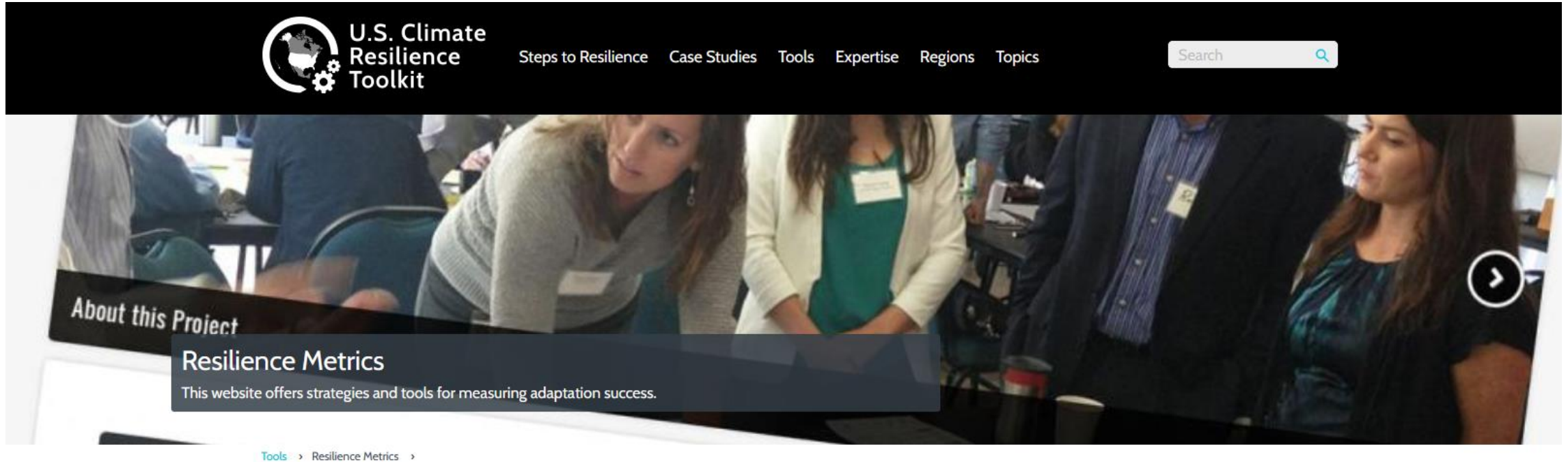
TABLE 7.3: CRS PREMIUM DISCOUNTS, BY CLASS

CRS Class	Premium Reduction
1	45%
2	40%
3	35%
4	30%
5	25%
6	20%
7	15%
8	10%
9	5%
10	0

Source: FEMA



Building Metrics



<https://toolkit.climate.gov/tool/resilience-metrics>

