

Flood Characteristics

Category	Flood Characteristic	White Sulphur Springs	Rainelle
Frequency (new flood maps)	Probability that a flood of a specific size will be equaled or exceeded in any given year		
	FEMA Flood Models: 10-, 25-, 50-, 100-, and 500-year flood elevations. FEMA's 1%+ flood elevations measure how high the 100-year flood could be given the statistical uncertainties in flood modeling (upper 84-percent confidence limit).	See models	See models
	First Street Foundation Flood Models: 5-, 20-, 100-, and 500-year flood elevations. Climate models based on 2052 or 30 years in the future.	See models	See models
Depth	Flood depth or water surface elevation above the ground surface. Source USGS high-water marks.	6 feet	8 feet
Velocity	Speed at which the floodwaters are flowing	High	Moderate
Duration	Measure of how long water remains above normal levels	24 hours	72 hours
Rise and Fall	Floodwater that rises very quickly with little or no warning	Quick Rise	Quick Rise

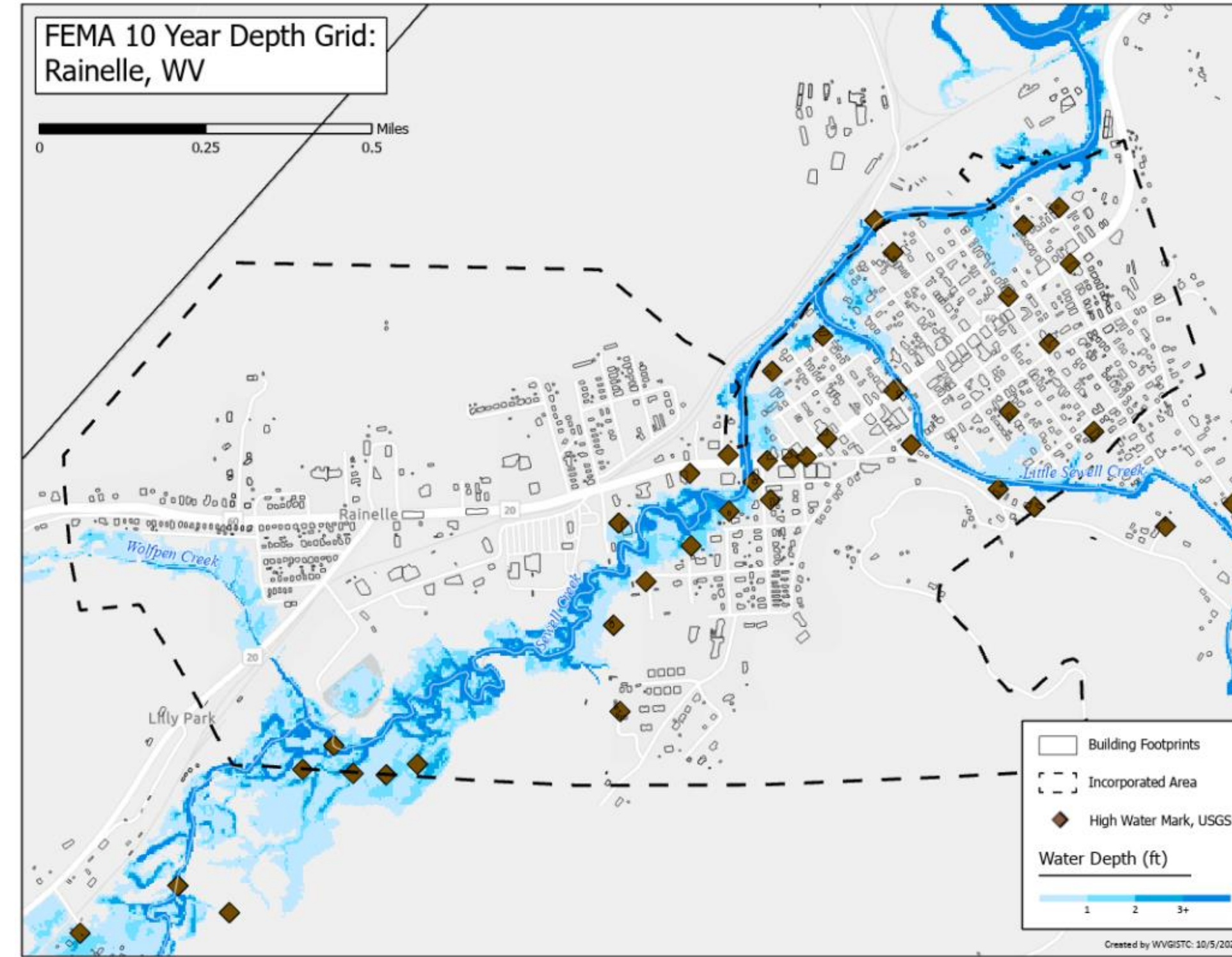
Notes: Flood characteristics are based on the 2016 flood and FEMA's new flood studies

2016 Flood Drone Video (Rainelle, WV)



Notes: Drone Video flood elevation: 2,392.5 ft.; Base Flood (100-yr elevation) is 2,930.0 ft., or a half foot above video footage; 2016 Flood Elevation high-water mark: 2,396.4 ft. (about 4 feet higher than video); 500-yr Flood elevation is 2,399.0 ft. or 6.5 feet above video elevation.

FEMA Flood Model: 10-Year Flood Depth

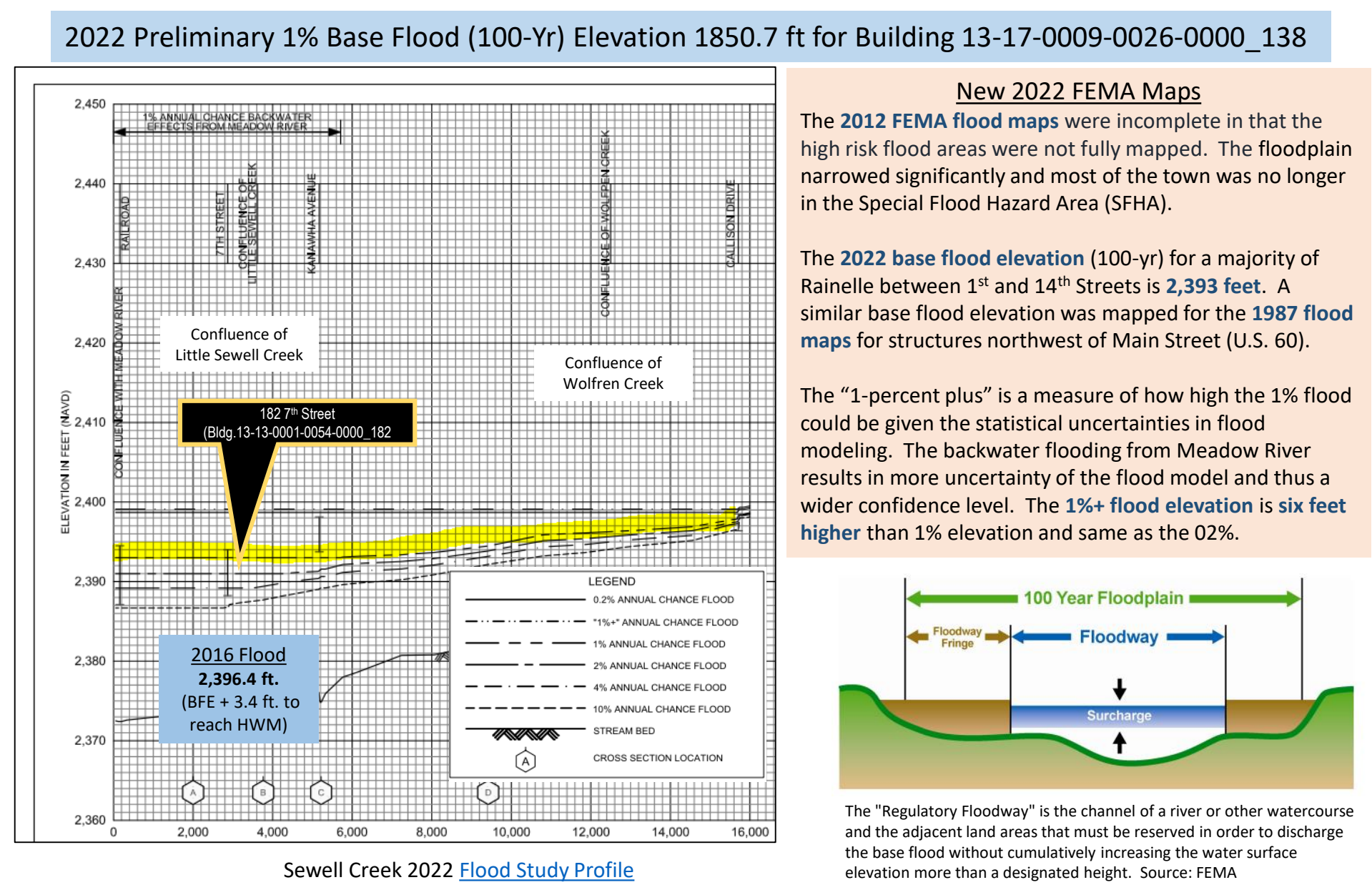


FEMA 10% Annual Chance (10-year)

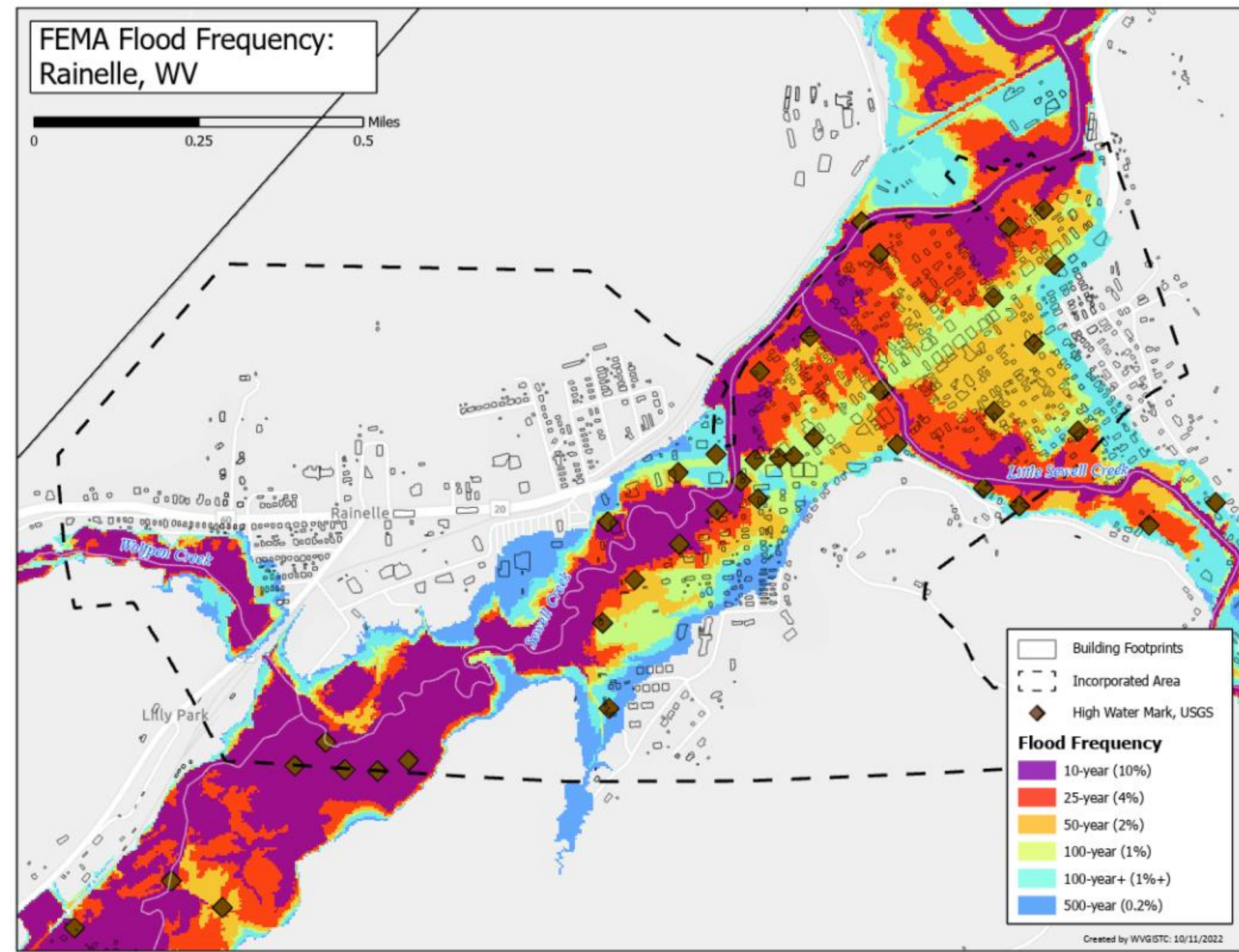
Rainelle, WV



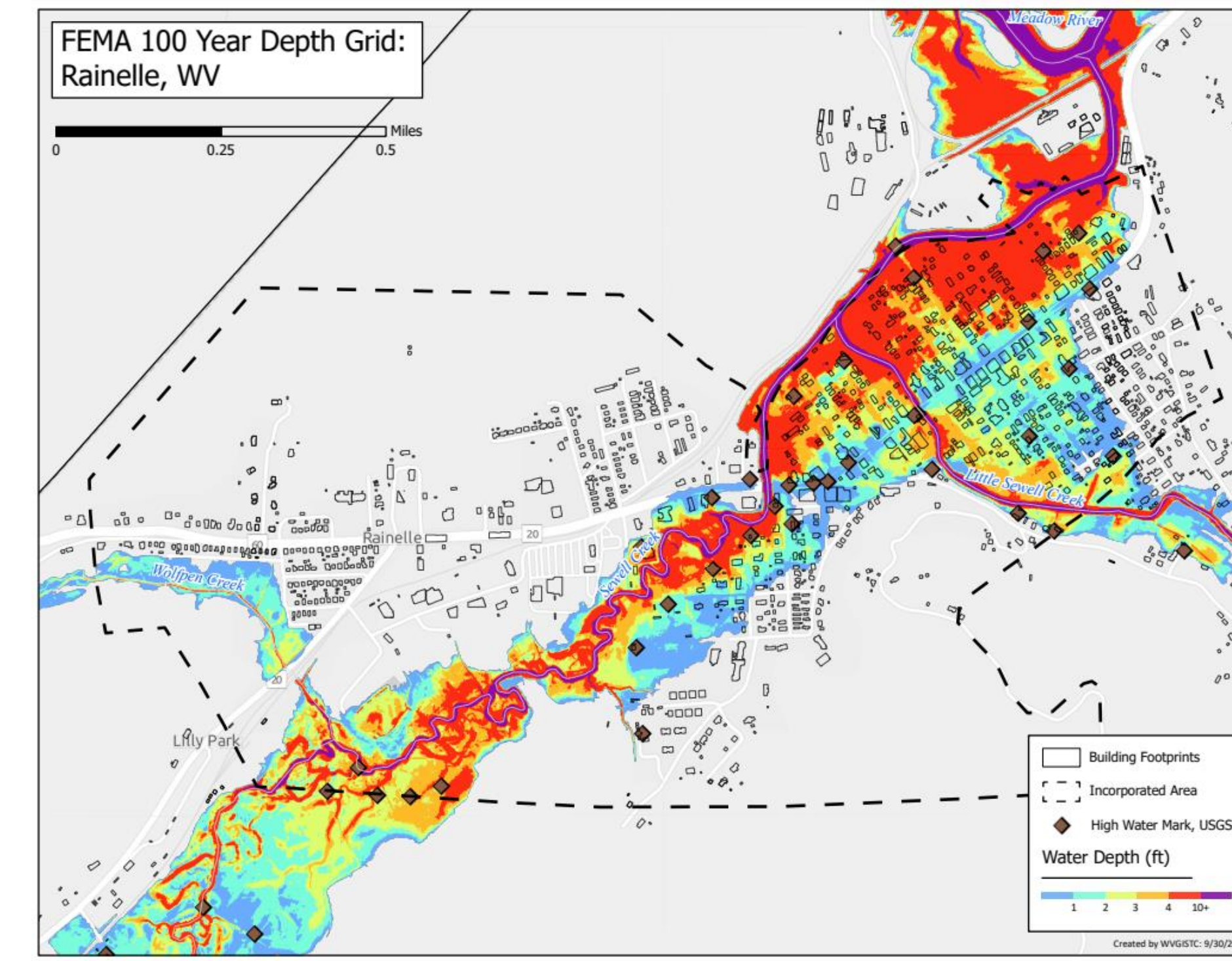
Sewell Creek Flood Study Profile



FEMA Flood Models: Likelihood and Magnitude



FEMA Flood Model: 100-Year Flood Depth

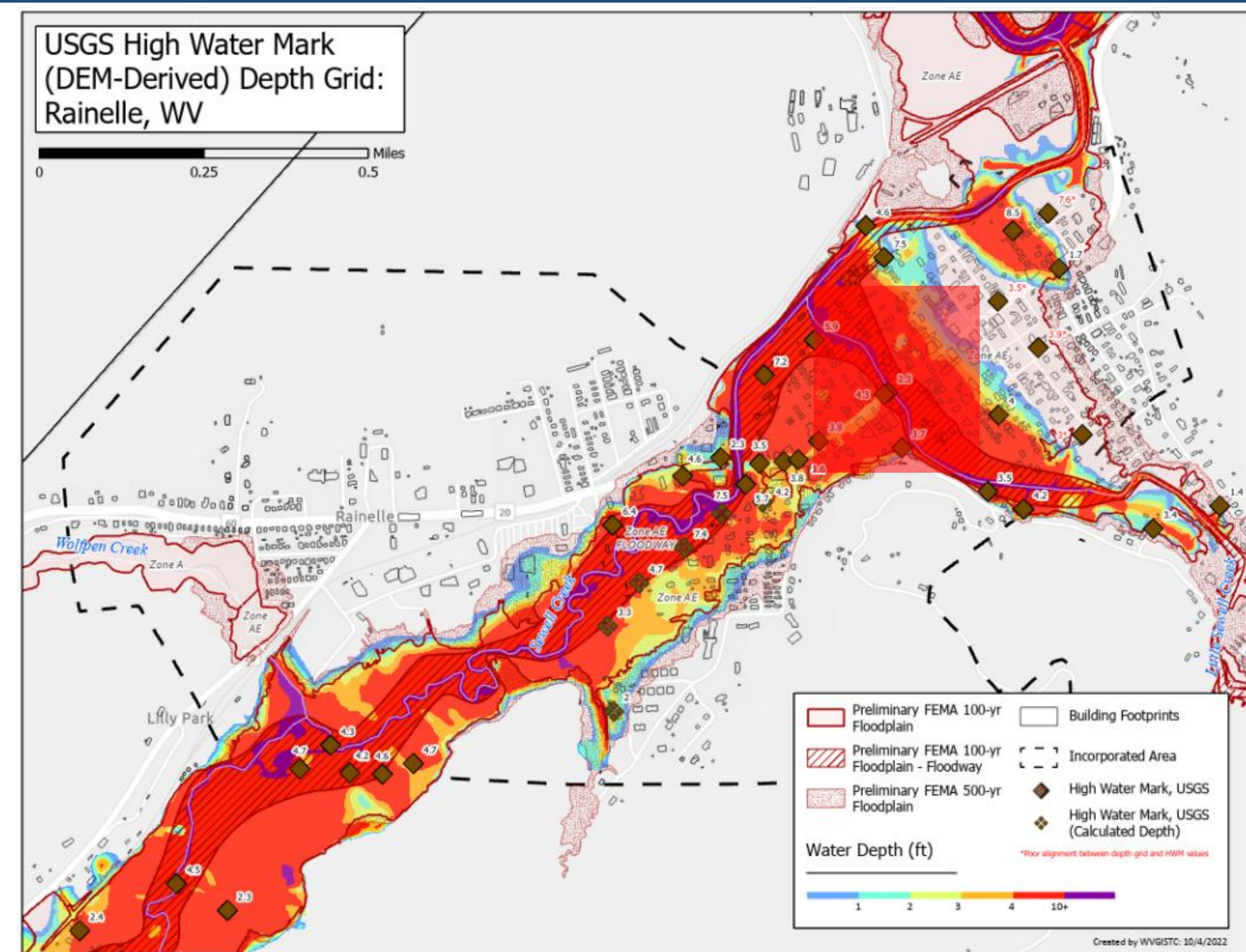


FEMA 1% Annual Chance (100-year)

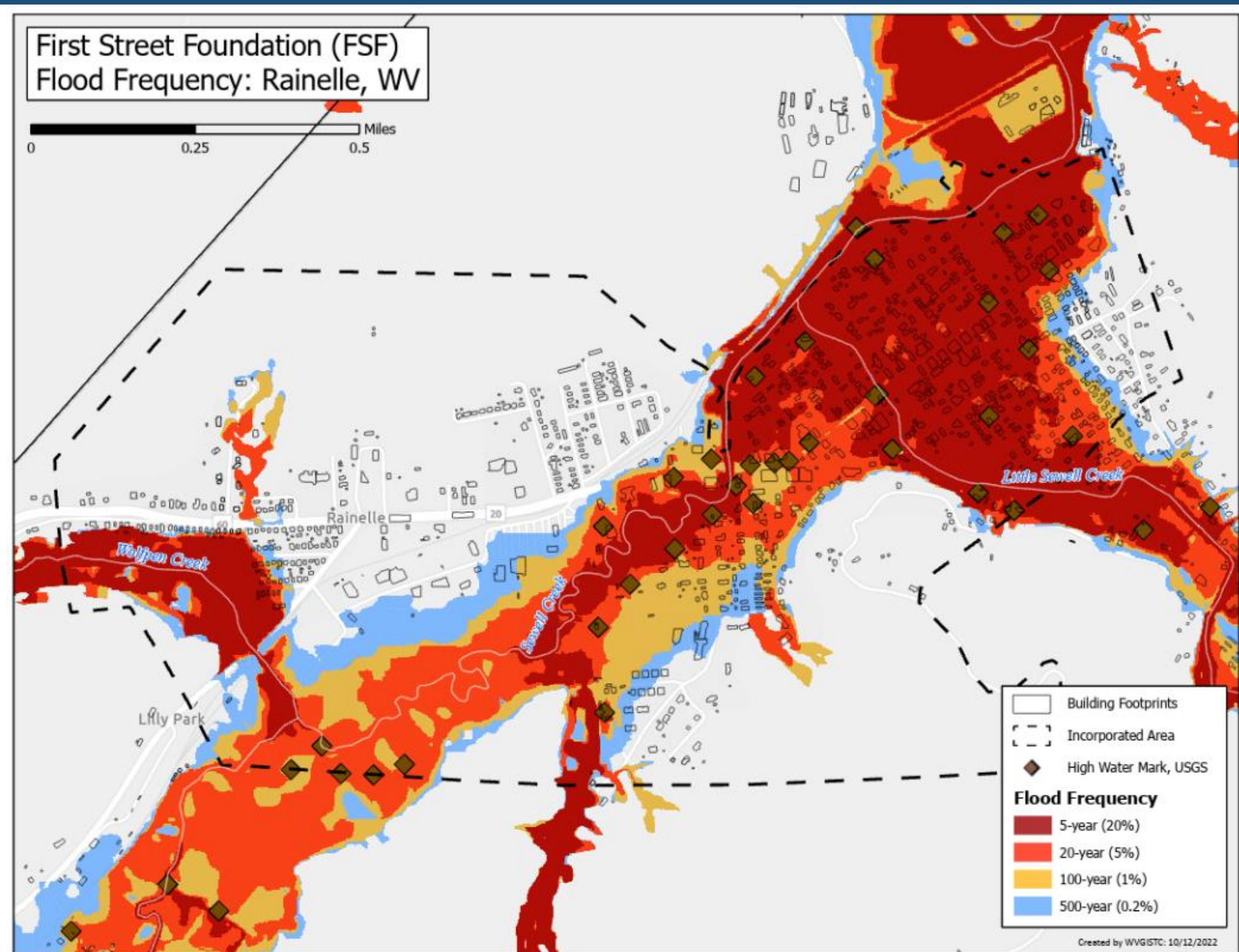
Rainelle, WV



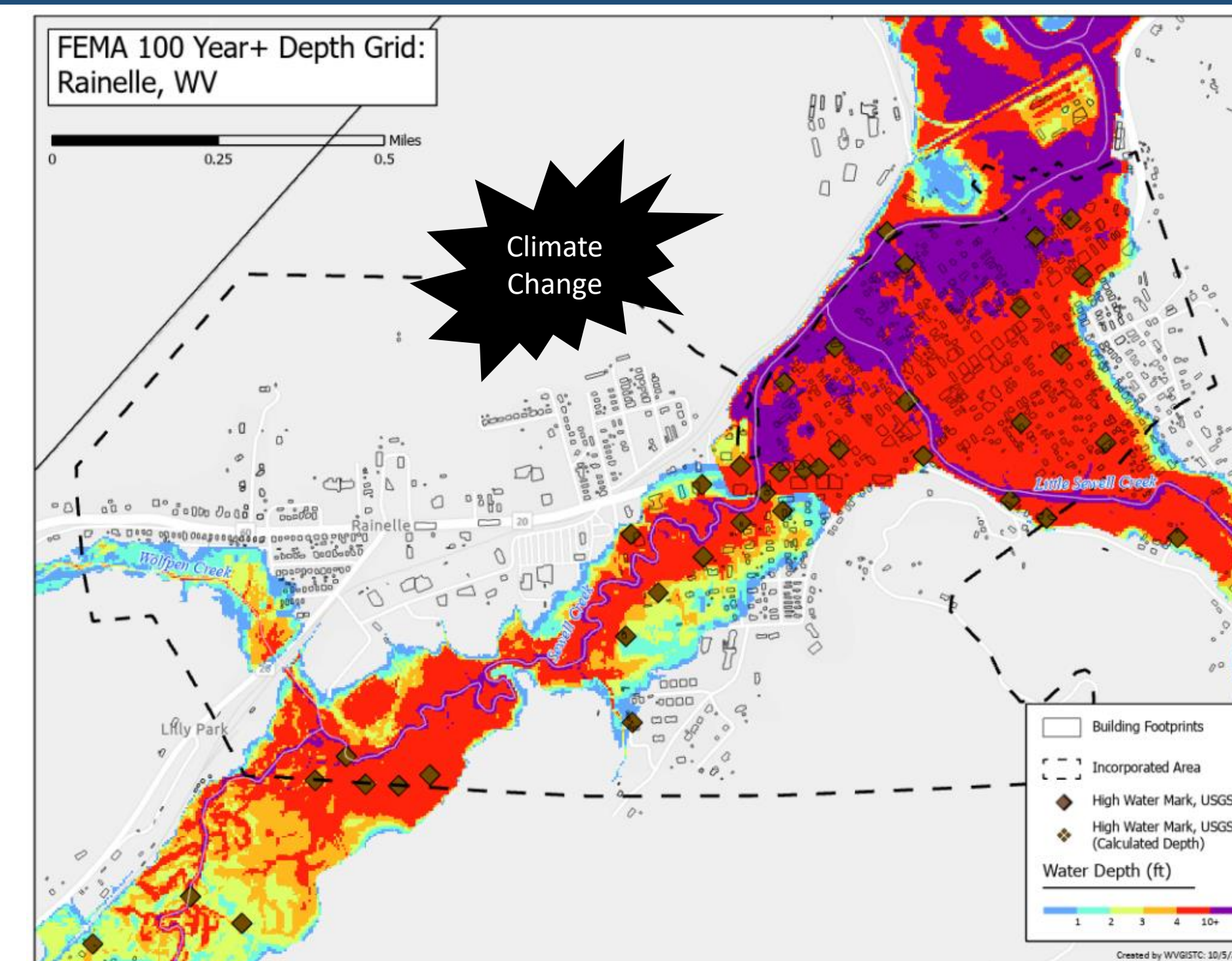
USGS High Water Marks: 2016 Flood Depths



FSF Flood Models: Likelihood and Magnitude

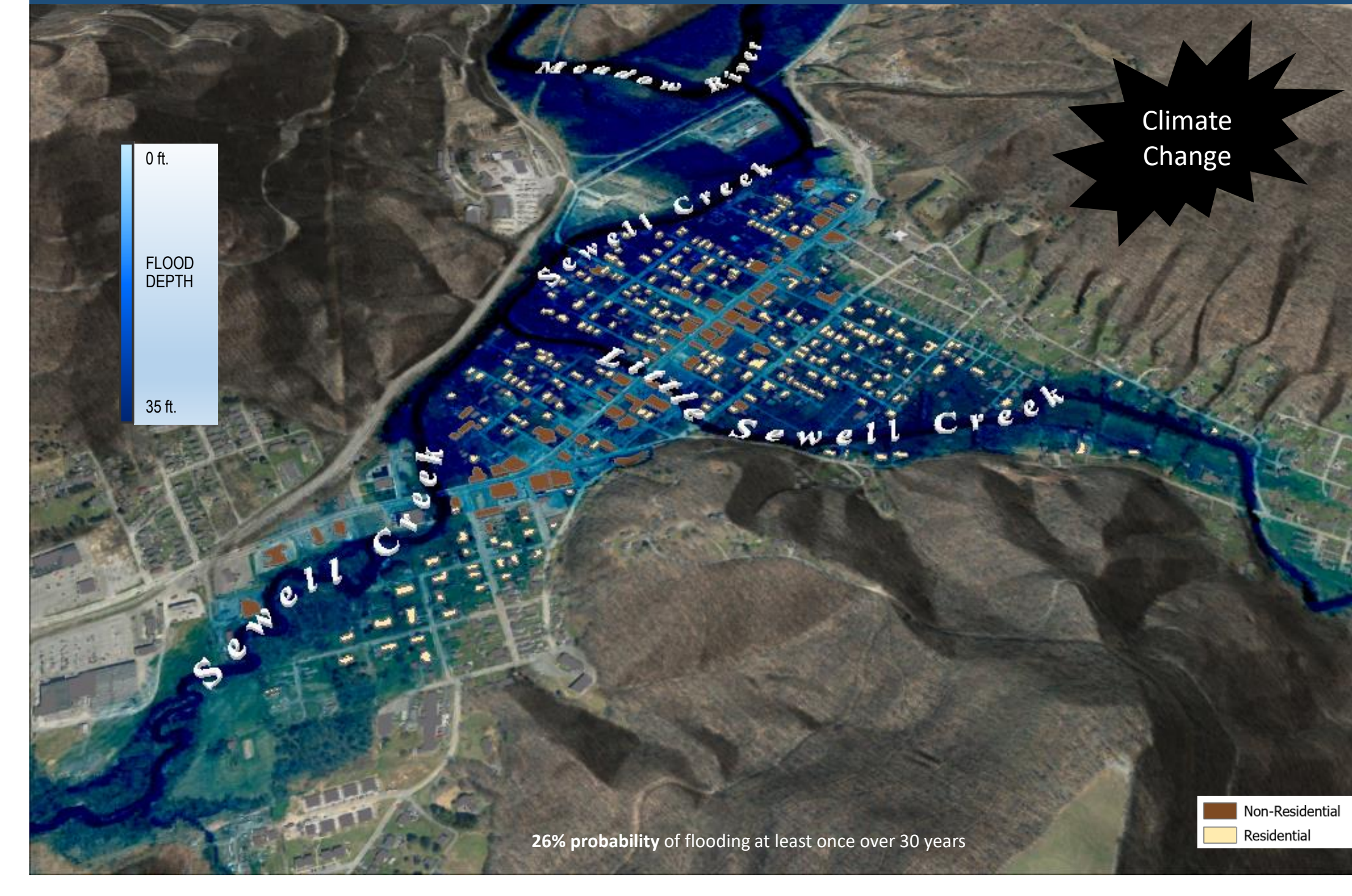


FEMA Flood Model: 100-Year Plus Flood Depth

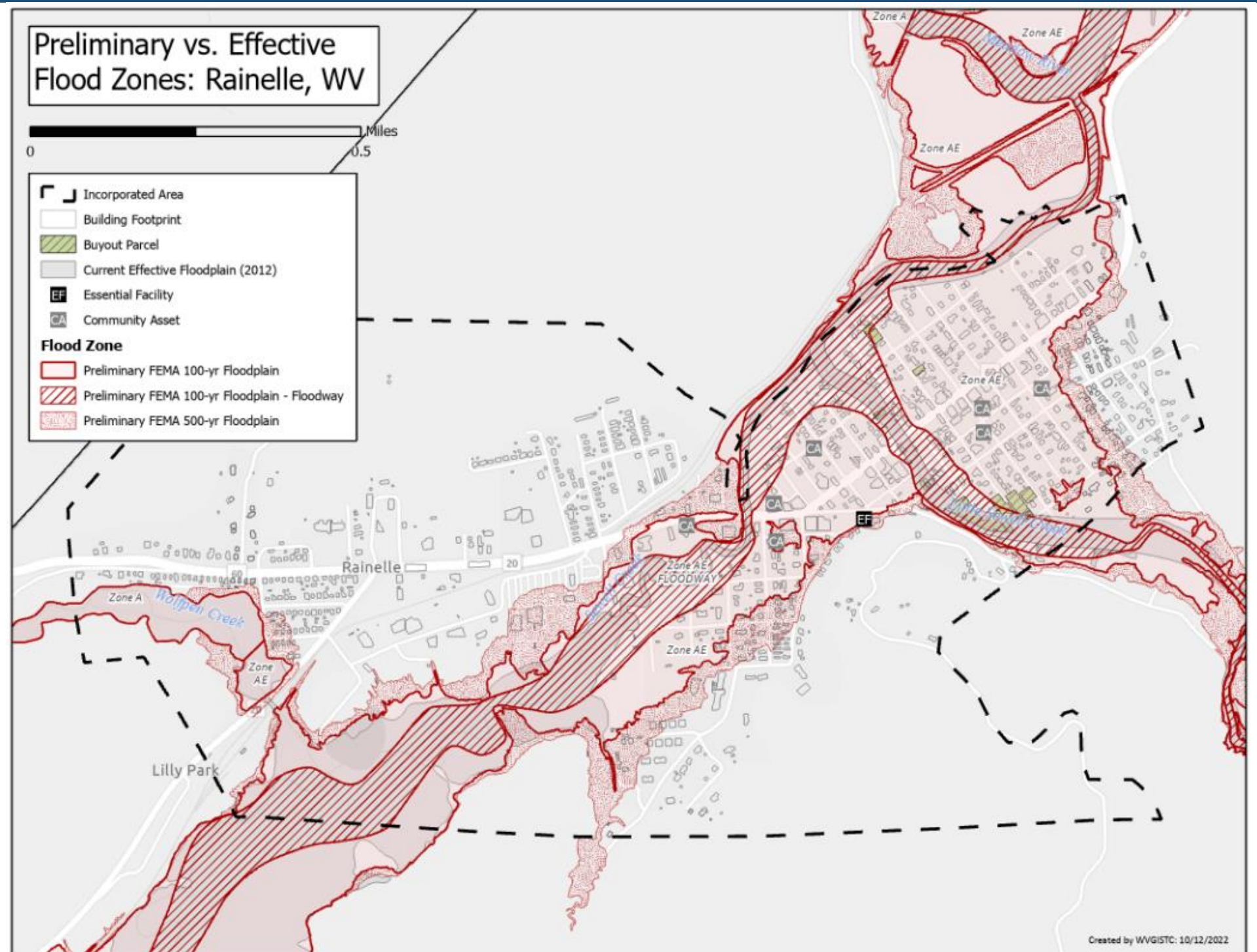


FEMA 1%+ Annual Chance (100-year)

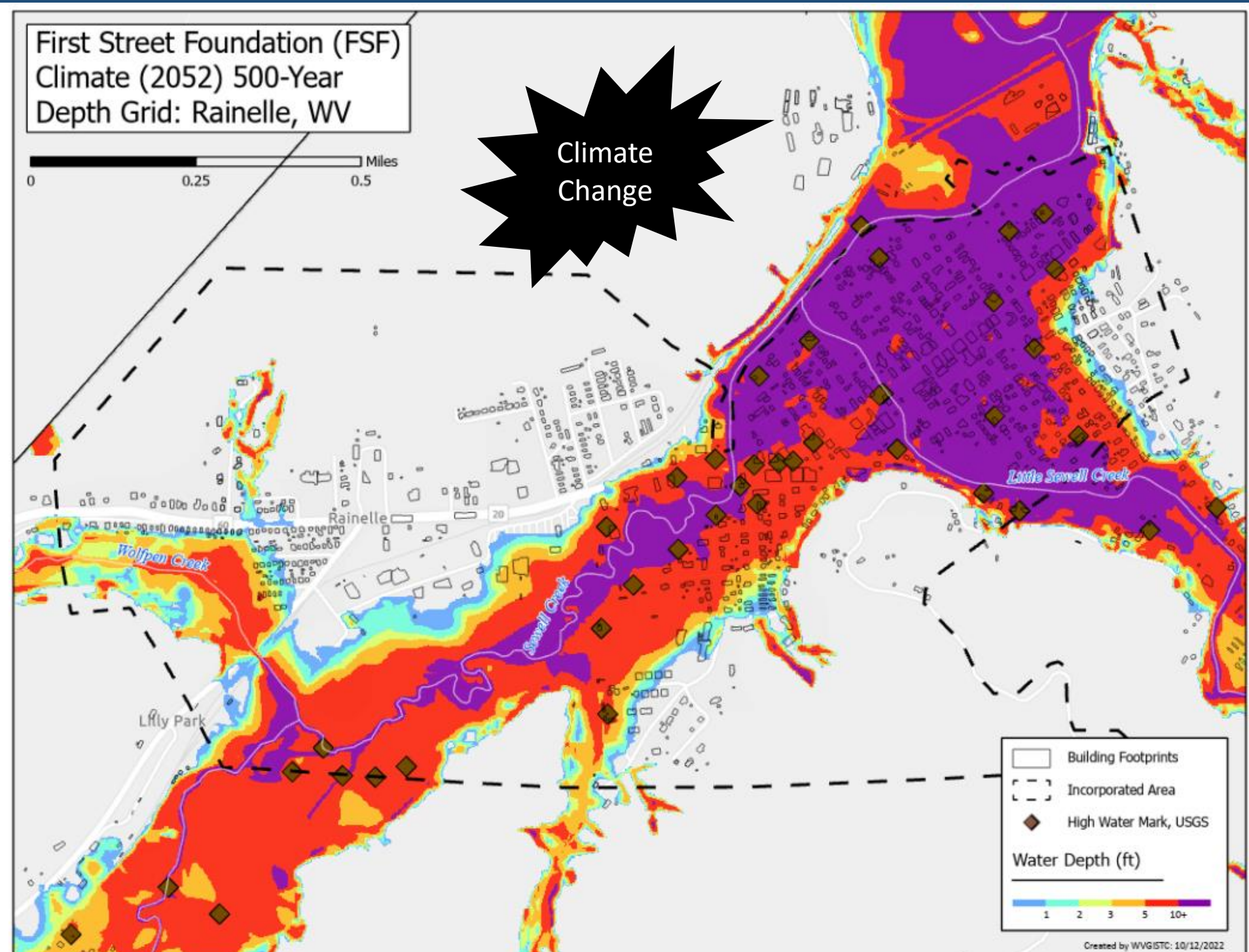
Rainelle, WV



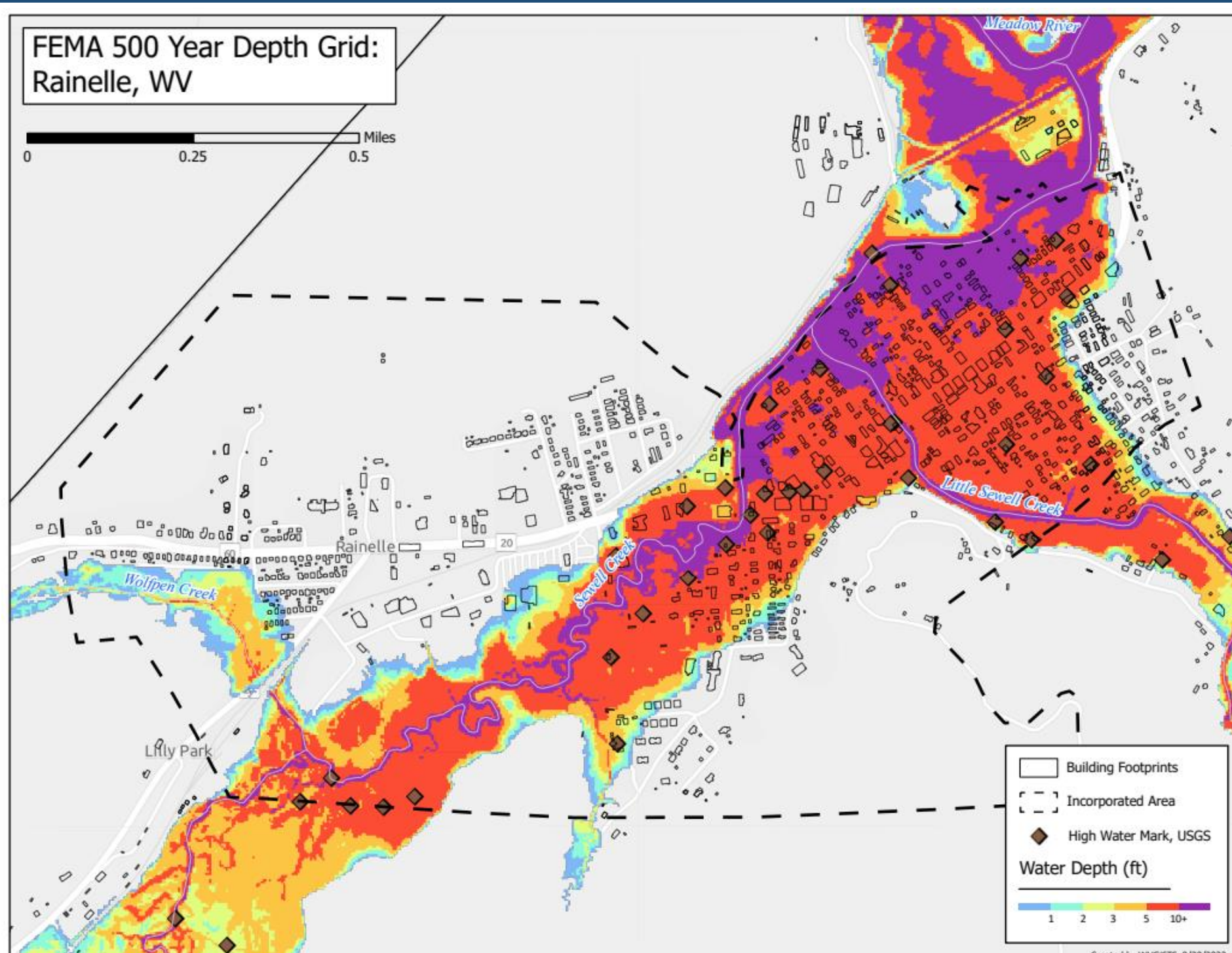
Preliminary FEMA Flood Maps Effective 2023



FSF Flood Model: 500-Year Flood Depth 2052



FEMA Flood Model: 500-Year Flood Depth



FEMA 0.2% Annual Chance (500-year)

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