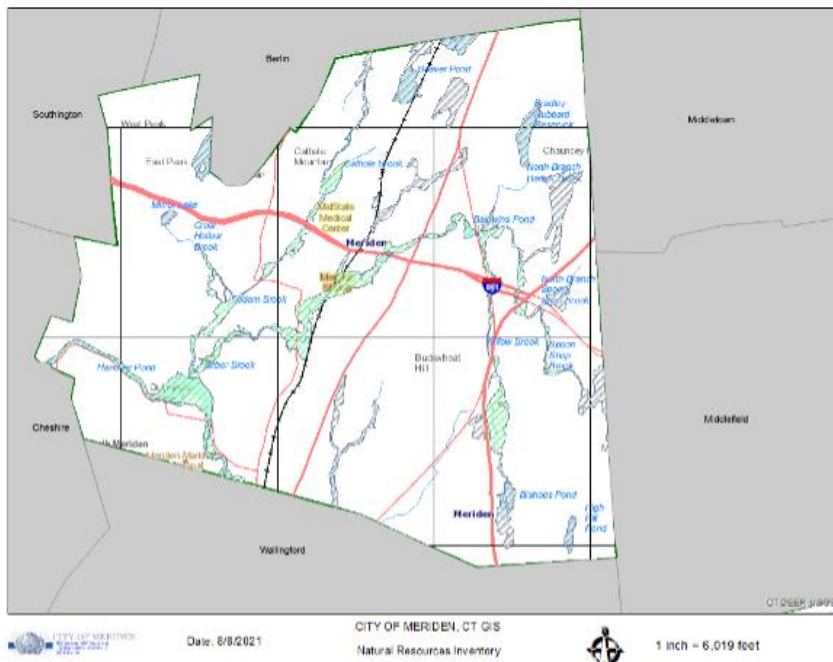


3.2b Floodplains

The [Federal Emergency Management Act \(FEMA\)](#) defines floodplains as “any land area susceptible to being inundated by floodwaters from any source”. According to [FEMA](#), a floodway refers to the regulatory river channel or other water course and the adjacent land areas that must be reserved to discharge the base flood.

Flood hazard areas identified on the Flood Insurance Rate Map are recognized as Special Flood Hazard Areas (SFHA). SFHAs are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. The 1-percent annual chance flood is called the base flood or 100-year flood. SFHAs are labeled Zone A, Zone AO, Zone AE, Zone AR/AO, and Zone VE. The areas of minimal flood hazard, which are the areas outside the SFHA and higher than the elevation of the 0.2-percent-annual-chance flood, are labeled Zone C or Zone X (unshaded).



FEMA Flooding	
	0.2 PCT Annual Chance Flood Hazard
	A
	AE
	AO
	VE

A 100-year flood is a flood that will occur at least once every 100 years. Numerous properties in Meriden lie on the 100-year floodplain. Meriden was historically impacted and shaped by flooding. As in many communities, buildings and roads were historically developed along streams as the floodplains provide more gentle terrain and fertile soils. Meriden is in the process of alleviating excess flooding and reducing the area defined by FEMA as a hazardous floodplain. Meriden has implemented multiple projects to reduce flood risks; the Meriden Green is a prime example. Meriden is planning ongoing flood control projects, such as the Harbor Brook Flood Control, and has integrated community initiatives like the Linear Trail into these projects. The flood control project will also

remediate brownfield areas along Harbor Brook, which contain hazardous contaminants. As *My Record Journal* reports,

“The existing floodplain, which currently spans a wide area along Harbor Brook would be significantly reduced after the latest phase is completed.”

Floodplains also reduce the impact of erosion downstream and sedimentation during flooding. When floodplains are full of water, they act as filters to remove excess sediment and nutrients and process organic waste. Floodplains are also considered part of wetlands, which are discussed in more depth in section 3.4.

Floodplains replenish groundwater and aquifers, which are primary water sources (discussed more in section 3.6). During low-flow periods, this groundwater can flow into adjacent waterways, reducing the low flow of streams (FEMA).

Floodplains directly or indirectly support numerous species. Many species spend their entire lives on floodplains or interacting with them. Keeping floodplain corridors available is vital for species migration, including threatened or endangered species. According to UCONN CTECO, the floodplains of Harbor Brook intersect with the habitat of several endangered, threatened, or species of special concern, such as the Eastern Spadefoot, Spotted Turtle, and Wood Turtle. Floodplains often occupy semi-marshy areas, which include shrubs like dogwood, spicebush, and sensitive fern. Flooding also spreads invasive plants in a floodplain.

Wooded areas can be found on floodplains. Several floodplains in Meriden are forests, where trees occupy a land shelf that remains unharmed during low-level flooding. Most trees in the forested floodplains are Red Maple, Silver Maple, Sycamore, and Eastern Cottonwood. In Connecticut, many floodplain forests are fragmented by a history of agricultural activity because they are typically on prime soils, which are the most preferable for agricultural production. Floodplain forests are considered a critical habitat by UCONN CTECO.

Coinciding with wetlands, undeveloped floodplains are beneficial because they improve water quality; serve as habitat, spawning, and nursery area for many species; prevent flood damage; support endangered species; and provide erosion control. Floodplains also provide outdoor recreational opportunities (i.e., wildlife viewing/photography, nature study).

One significant threat to floodplains is pollution from surface runoff. Native wetland vegetation also maintains ecosystem health by removing nutrients from fertilizer run-off or waste products. Floodplains allow harmful nutrients from runoff water to settle out, improving water quality. Meriden participates in DEEP programs to reduce and mitigate runoff effects.

The Flood Control Implementation Agency actively manages flooding issues. Minutes and other information can be found on [MeridenCT.gov](https://www.meridenct.gov) by searching for “Documents on Demand” and then searching “flood.”

References and Resources

FEMA Definitions

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FEMA Floodways

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<https://portal.ct.gov/DEEP/Endangered-Species/Endangered-Species-Listings/Endangered-Threatened--Special-Concern-Reptiles>

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UConn CTECO, Resource Guide for Critical Habitat

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CT DEEP, Quinnipiac Water Management Plans

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