

## Water Resources and Aquatic Habitats

### Chapter 3. Water Resources

#### Water Resources

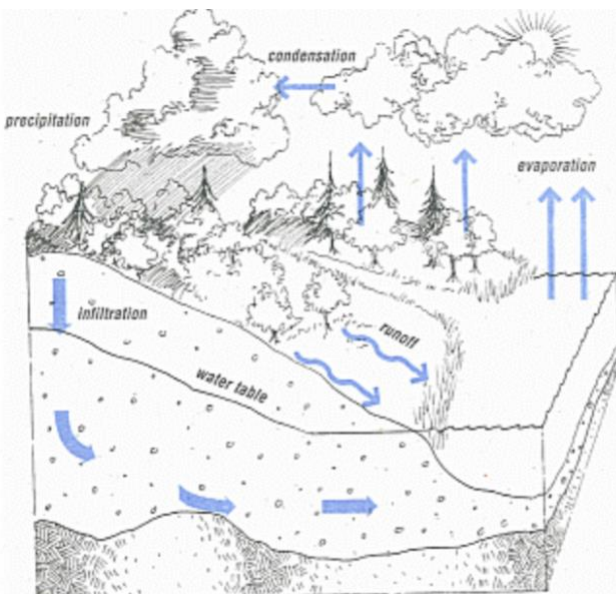
Water is a significant element of Meriden's landscape, history, economy, and culture. Streams, ponds, and reservoirs are prominent throughout the city. Meriden is also home to internationally award-winning bottled water for best-tasting water. Flooding has had a tremendous impact on Meriden's economy and responding to flooding problems has brought numerous changes to downtown. Trails and other recreation rely on waterways, and the Quinnipiac River Watershed Association is headquartered in Meriden.

Meriden has twelve named ponds and reservoirs, nine named streams and tributaries, and numerous ponds and vernal pools. Water also occurs underground in aquifers and groundwater. Water is constantly moving, returning to the sky or the sea. The latter movement occurs in established drainage patterns that are defined as watersheds. Watersheds are a defining component of Meriden's natural landscape. Within these watersheds, waterways and water bodies interconnect with one another. For example, Crow Brook is a tributary to Harbor Brook, while Harbor Brook is a tributary to the Quinnipiac River. The Quinnipiac runs through Meriden and forms the center of the South-Central Coastal Basin of Connecticut. The whole South-Central Coastal Basin drains 482 square miles of Connecticut, of which the Quinnipiac watershed is approximately 166 square miles.

#### How Water Resources Are Rejuvenated and Replenished

An adequate supply of water is essential to all living things providing not only the water needed for biological functioning but also the water needed by the food web and natural environment life cycles. Living things are actively rejuvenating and replenishing themselves and require a consistent and reliable water supply to succeed. Water is very similar and must also actively rejuvenate and replenish itself.

As precipitation falls, surface water drains into the streams and rivers, adding to the current flow while the rest of the water soaks into the ground, recharging groundwater and aquifers. Meriden has several aquifers and six well fields which are a major source of the public water supply.



The cyclical journey that our water repeats over and over again is called the hydrologic cycle.

This graphic provided by CT DEEP illustrates the "hydrological cycle" that rejuvenates and replenishes water throughout the natural world. Plant transpiration is vital to this replenishment, strengthening the evaporation part of the hydrological cycle.

This section describes the critical elements of the process that produces an adequate supply of healthy water and discusses the direct relationship that water resources have with each other. An in-depth explanation of the water cycle can be found on DEEP's website, listed in the "Resources" at the bottom of this section.

### 3.1a Watersheds

A watershed is defined as all the land and waterways that drain into the same body of water, breaking down into Regional, Subregional, and Local level watersheds. In Meriden's 24 square miles, surface water drainage begins at the peak of one of six subregional watersheds. Three drain 89% of the city's land area (the Quinnipiac River, Harbor Brook, and Sodom Brook). Meriden has eleven local watersheds.

The environmental conditions of the landscape in these watersheds are a primary factor in the success of the water cycle's processes to rejuvenate and replenish water. Maintaining healthy and sustainable landscapes significantly improves nature's ability to provide the quantity and quality of water needed. These watersheds also support numerous animals and plants, which benefit from a healthy environment and contribute to the water cycle's success in various ways. Water is a powerful force of nature, and disruptions in the watershed can result in flooding, erosion, and other damage. Abundant and diverse native plants in the watershed reduce the threat of flooding and erosion.

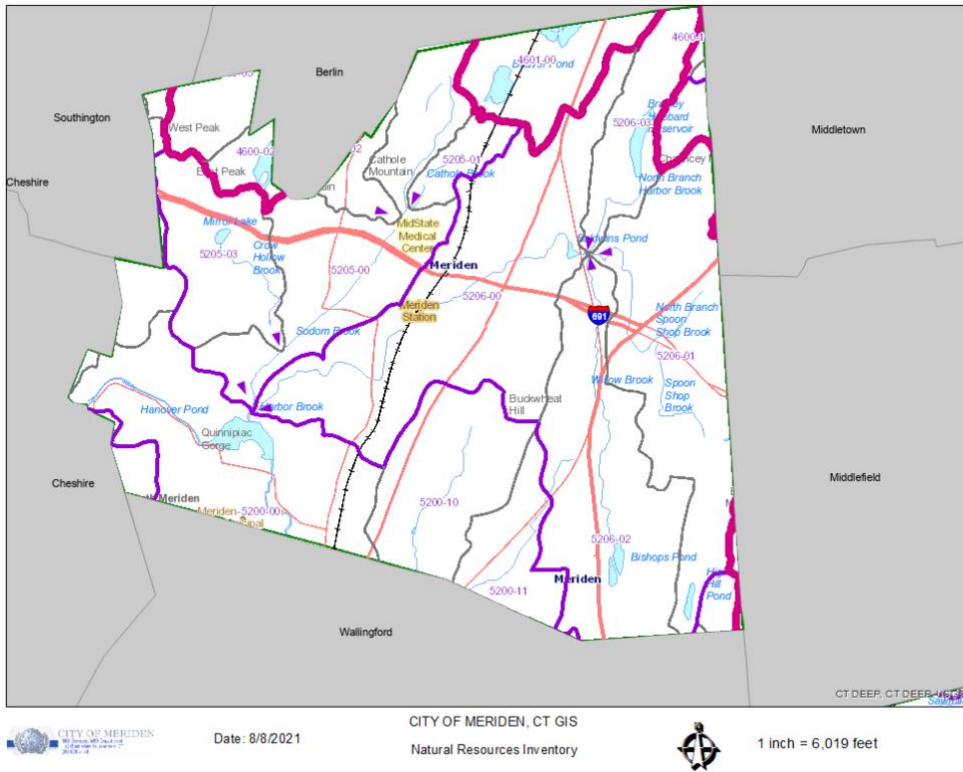
<b>Regional Watersheds</b>	<b>Subregional Watersheds</b>	<b>Local Watershed</b>
A regional watershed is the subdivision of the 8 major basins in Connecticut. There are 45 regional basins. Meriden is in the Quinnipiac regional basin.	A subregional watershed is the subdivision of the 45 regional basins in Connecticut. There are 337 subregional basins. Meriden's six subregional watersheds include Sodom Brook and Harbor Brook.	A local watershed is the subdivision of the 337 subregional basins in Connecticut. There are 2,898 local basins. This includes Meriden's smaller streams and brooks.

Definitions of Watershed Hierarchy provided by UCONN's Connecticut Environmental Conditions Online



This image shows one view of the Quinnipiac River Gorge Trail, courtesy of the City of Meriden's website.

A map of the Watershed and Local Basins shows the Major Basin, Regional, Subregional and Local Watersheds of Meriden (City of Meriden).



### Watersheds/Local Basins

Local Basin Line		Drainage Basin Description		Basin ID	Drainage Basin Description
	Major Basin		Outlet Direction	4600-01	Mattabeset River
	Regional Basin		Main Stem	4600-02	Stocking Brook
	Subregional Basin		Coastal Direction	4601-00	Merimere Reservoir
	Local Basin			5200	Beaver Pond / Silver Lake / Belcher Brook
				5200-00	Quinnipiac River
				5200-10	Quinnipiac River above various tributaries
				5200-11	Meetinghouse Brook
				5205-00	Spruce Glenn Brook
				5205-01	Sodom Brook
				5205-03	Unnamed Brook
				5206-00	Crow Hollow Brook
				5206-01	Harbor Brook / Baldwins Pond
				5206-02	Unnamed Pond
				5206-03	Willow Brook / Bishops Pond

These watersheds support numerous animals and plants and reduce the effects of flooding. Watersheds include aquatic and terrestrial life, as both are dependent on the water that watersheds provide. Watersheds are vital for migratory species that come through Meriden.

The [Quinnipiac River Watershed Association](#), based in Meriden, focuses on creating informed and fun events to encourage the community to act as informed stewards. The QRWA, the Connecticut Department of Energy and Environmental Protection (CTDEEP), and the EPA developed the Quinnipiac Watershed Action Plan to address water quality issues of the Quinnipiac and its tributaries.

