

= Briar Creek ( Susquehanna River ) =

Briar Creek is a tributary of the Susquehanna River in Columbia County , Pennsylvania , in the United States . It is 7 @. @ 77 miles ( 12 @. @ 50 km ) in length . The stream has a watershed area of 33 @. @ 0 square miles . It flows through Briar Creek Township and the borough of Briar Creek . The area near the creek was originally inhabited by the Lenni Lenape and the Shawanese . European settlers arrived in the 1770s .

Briar Creek has two named tributaries : West Branch Briar Creek and East Branch Briar Creek . The discharge of Briar Creek ranges from 0 @. @ 06 to 50 cubic feet per second . The water temperature of the creek ranges from 32 ° F ( 0 ° C ) to 80 @. @ 96 ° F ( 27 @. @ 20 ° C ) . The rock in the watershed mostly consists of sandstone , siltstone , mudstone , limestone , and shale .

There are Pennsylvania State Game Lands in the watershed , as well as a lake known as the Briar Creek Reservoir . In the lake , the most common species of fish is yellow perch .

= = Course = =

Briar Creek begins where Knob Mountain , Huntington Mountain , and Lee Mountain meet in western Briar Creek Township . It flows east for a short distance before turning south through a gap in Lee Mountain , briefly descending quite steeply . The course levels out as it leaves the mountain behind and begins flowing through a valley after a short distance . It flows under Pennsylvania Route 93 , leaving the valley behind . Soon afterwards , the stream picks up the tributary West Branch Briar Creek and turns southeast . After some distance , it enters the community of Briar Creek and picks up the tributary East Branch Briar Creek . The stream then turns southwest and reaches its confluence with the Susquehanna River near French Island .

= = = Tributaries = = =

Briar Creek has two named tributaries : East Branch Briar Creek and West Branch Briar Creek . East Branch Briar Creek joins Briar Creek 1 @. @ 02 miles ( 1 @. @ 64 km ) upstream of its mouth . Its watershed has an area of 15 @. @ 10 square miles ( 39 @. @ 1 km<sup>2</sup> ) . West Branch Briar Creek joins Briar Creek 2 @. @ 74 miles ( 4 @. @ 41 km ) upstream of its mouth . Its watershed has an area of 12 @. @ 10 square miles ( 31 @. @ 3 km<sup>2</sup> ) .

= = Hydrology = =

The Briar Creek watershed falls into two of Pennsylvania 's ten climate divisions : Division 1 ( Pocono Mountains ) and Division 5 ( Central Susquehanna ) .

The discharge of Briar Creek about two miles ( three kilometers ) downstream of its headwaters ranges from 0 @. @ 06 to 39 @. @ 1 cubic feet per second ( cfs ) , with a median of 0 @. @ 685 cfs . Just upstream of West Branch Briar Creek 's confluence with the creek , the discharge ranges from 0 @. @ 63 to 22 @. @ 1 cfs , with a median of 4 @. @ 03 cfs . Near the mouth of the creek , the discharge ranges from 4 @. @ 14 to 50 cfs . There is a median discharge of 18 @. @ 5 cfs at this point . On East Branch Briar Creek about two miles from its headwaters , the discharge ranges from 0 @. @ 4 to 10 @. @ 425 with a median discharge of 1 @. @ 385 cfs . Near Briar Creek Reservoir , East Branch Briar Creek 's discharge has a minimum of 0 @. @ 54 cfs , a maximum of 11 @. @ 5 cfs , and a median of 4 @. @ 645 cfs . On West Branch Briar Creek , the discharge ranges from 0 @. @ 67 to 31 @. @ 1 cfs , with a median of 3 @. @ 2 cfs .

The water temperature of Briar Creek near its source ranges from 35 @. @ 96 to 64 @. @ 94 ° F ( 2 @. @ 20 to 18 @. @ 30 ° C ) , with a median of 51 @. @ 44 ° F ( 10 @. @ 80 ° C ) . This is the highest minimum temperature of any studied location in the watershed . Near West Branch Briar Creek 's confluence with Briar Creek , the latter creek has a temperature range of 32 to 67 @. @ 46 ° F ( 0 @. @ 00 to 19 @. @ 70 ° C ) and a median of 49 @. @ 28 ° F ( 9 @. @ 60 ° C ) . This is the lowest minimum temperature of any studied location in the drainage basin . Near its mouth , the

temperature ranges from 32 @. 18 to 80 @. 96 ° F ( 0 @. 10 to 27 @. 20 ° C ) . The median temperature is 57 @. 56 ° F ( 14 @. 20 ° C ) . On West Branch Briar Creek , the temperature is a minimum of 35 @. 6 ° F ( 2 @. 0 ° C ) , a median of 57 @. 38 ° F ( 14 @. 10 ° C ) , and a maximum of 71 @. 6 ° F ( 22 @. 0 ° C ) . Two miles downstream of East Branch Briar Creek 's headwaters , the median temperature is 49 @. 73 ° F ( 9 @. 85 ° C ) and the range is 32 @. 18 to 71 @. 42 ° F ( 0 @. 10 to 21 @. 90 ° C ) . Near Briar Creek Reservoir , the water temperature has a minimum of 32 @. 18 ° F ( 0 @. 10 ° C ) , a maximum of 78 @. 62 ° F ( 25 @. 90 ° C ) , and a median of 50 @. 18 ° F ( 10 @. 10 ° C ) .

Briar Creek is slightly alkaline on average . The pH of the creek near its mouth ranges from 7 @. 16 to 8 @. 21 , with a median of 7 @. 7 . Upstream of West Branch Briar Creek , the creek 's pH ranges from 6 @. 15 to 7 @. 69 . The median is 7 @. 45 . Near the creek 's headwaters , the pH ranges from 5 @. 52 to 7 @. 47 and has a median of 6 @. 67 . West Branch Briar Creek has a minimum pH of 6 @. 96 , a median pH of 7 @. 87 , and a maximum pH of 8 @. 31 . Not far from its headwaters , East Branch Briar Creek has a pH range of 6 @. 78 to 7 @. 21 and a median pH of 6 @. 92 . Near Briar Creek Reservoir , it has a pH range of 7 @. 14 to 8 @. 73 and a median pH of 7 @. 565 .

The level of total dissolved solids in Briar Creek near its source has a range of 50 to 161 parts per million ( ppm ) and a median of 96 ppm . Upstream of West Branch Briar Creek , the range is 12 to 98 ppm and the median is 38 ppm . Near Briar Creek 's source , the median is 14 ppm , the minimum is 10 ppm , and the maximum is 89 ppm . The concentration of dissolved solids in the upper reaches of East Branch Briar Creek ranges from parts per 25 to 113 ppm , with a median of 35 @. 5 ppm . Immediately upstream of Briar Creek Reservoir , the concentration ranges from parts per 34 to 86 ppm , with a median of 43 @. 5 ppm .

= = Geology and geography = =

The watershed of Briar Creek is located in the ridge and valley physiographic region . The top of Lee Mountain forms a drainage divide between the creek 's watershed and another watershed . Several points along Briar Creek and its tributaries have erode with ease or moderate ease . The infiltration capacity of these points is mostly moderate to high .

In the very northern reaches of the Briar Creek watershed , the bedrock is made up of sandstone . South of the sandstone layer , there is a section of the watershed where the bedrock is mudstone . In the central part of the watershed , the bedrock is siltstone . In the southern part of the watershed , the bedrock is mostly shale , including the part of the watershed in Berwick , which is has bedrock of calcerous shale . A small area north of Berwick has limestone bedrock .

There are a number of types of soil in the Briar Creek watershed . One of these is the Holly Series , which is an acidic silt loam . Places in the watershed where the Holly Series is found include Briar Creek about one mile upstream of the mouth of West Branch Briar Creek , West Branch Briar Creek about 1 @. 5 miles ( 2 @. 4 km ) upstream of its mouth , and near Briar Creek Reservoir . Another soil series in the drainage basin is the Buchanan Series , an acidic stony loam . Places it is found include Briar Creek about two miles downstream of its headwaters . The Albrights Series , a silt loam with gravel , is also found in the watershed , in such places as East Branch Briar Creek two miles downstream of its headwaters . The Chenango Series is a silt loam that occurs , among other places , in the southeastern and southern corners of the watershed . The Watson Series and the Middlebury Series ( sandy and silty loams , respectively ) are found in parts of the central part of the Briar Creek watershed . The Zipp Series is a somewhat acidic silt loam that occurs in places such as the Cabin Run watershed .

Briar Creek is between 25 feet ( 7 @. 6 m ) and 30 feet ( 9 @. 1 m ) wide . Its tributary West Branch Briar Creek is about 15 feet ( 4 @. 6 m ) wide .

= = Watershed = =

The Briar Creek watershed has an area of 33 @. 0 square miles ( 85 km<sup>2</sup> ) . It is located in

Columbia County and Luzerne County . There are six communities that are fully or partly within the watershed : Briar Creek , Briar Creek Township , North Centre Township , Orange Township , and Berwick in Columbia County and Salem Township in Luzerne County . A total of 1 @. @ 04 square miles are located in Briar Creek , 16 @. @ 48 are located in Briar Creek Township , 12 @. @ 04 are located in North Centre Township , 0 @. @ 22 are located in Orange Township , 1 @. @ 24 are in Berwick , and 1 @. @ 94 are in Salem Township . As compared to other watersheds with the same size and land use , the Briar Creek watershed has been given a B rating by the Pennsylvania Department of Environmental Protection . According to the Briar Creek Coldwater Conservation Plan , this indicates that " residents in the watershed are working to improve and / or conserve resources in the area " .

A total of 8678 acres , or 41 % of the Briar Creek watershed is forested land . Much of this is on Knob Mountain or belongs to the Pennsylvania State Game Lands Number 55 . A total of 7210 acres , or 34 % of the watershed , is farmland and 1143 acres , or 6 % of the watershed , is urban land . Most of this is in the southeastern part of the watershed . A total of 3984 acres , or 19 % of the land in the watershed , is non @-@ agricultural grassland .

There are approximately 44 @. @ 23 miles ( 71 @. @ 18 km ) of streams in the Briar Creek watershed . The watershed is made up of seven smaller watersheds , or sub @-@ watersheds . A 53 @-@ acre lake known as the Briar Creek Reservoir is also situated on a tributary to Briar Creek . The lake , which is manmade , was constructed for flood control purposes in the early 1970s . It is also used for fishing and boating .

= = History and etymology = =

Briar Creek was historically known as the " Kawanishoning " to the area 's Native Americans . This name was a Lenni Lenape word for " sweet briar " . However , the creek was also referred to as " Kawanishoning Creek " by white soldiers and explorers during the time of the American Revolutionary War . By 1770 , some maps began referring to the creek as Bryar Creek , which became the more common name by the end of the eighteenth century and remained so as late as 1840 . However , the spelling gradually changed to Brier Creek and then Briar Creek .

Up to approximately 1770 , the area around Briar Creek was inhabited by the Lenni Lenape Indians . They built villages on the banks of the creek . The Shawanese also had a village at the mouth of the creek . In the 1770s , European settlers arrived in the area . The White family from New Jersey was among the first families of settlers to arrive in the Briar Creek valley . The Briar Creek area was one of the first places in Columbia County to be settled , on account of the high level of fertility of the land . The area around Briar Creek was part of Northumberland County in the late 1700s . In 1799 , Samuel Ely was granted a patent from the state of Pennsylvania for 307 acres of land on Briar Creek known as " Manheim " . In 1806 , he gained a 426 @-@ acre tract of land on the creek . This tract was known as " Quincy " . Ely 's four sons inherited the land .

In the beginning of the 1800s , a number of mills were built on tributaries of the creek . A number of other industries were established in the watershed in the early 1800s , including a sawmill , a woolen mill , an iron furnace , and a tannery . In the second half of the 1800s , railroads began to be built in the watershed . Heavy industries and fisheries also began to appear in the area around this time .

By 1911 , two dams had been constructed on Glen Brook ( a subtributary of Briar Creek ) in Briar Creek Township two miles north of Berwick . In 1911 , the first dam , known as Number One , had a capacity of 15 million gallons . The second dam , known as Number Two , had a capacity of 7 @. @ 5 million gallons . In 1911 , a third dam was under construction several hundred feet downstream of the two aforementioned dams . It was intended to have a capacity of 23 @. @ 8 million gallons .

The Briar Creek Watershed Association is a watershed association for Briar Creek . It was formed in 2006 .

= = Biology = =

Pennsylvania State Game Lands # 55 are in the Briar Creek watershed . The Pennsylvania

Department of Conservation and Natural Resources has designated the Briar Creek watershed as " place of ecological importance " .

More than 90 species of birds breed within the Briar Creek watershed . These include several species of ducks , flycatchers , herons , plovers , rails , and swallows , as well as one species of kingfisher and one species of crane . Bald eagles , sandhill cranes , and several species of waterfowl have been observed on Briar Creek Reservoir . Mammals living in the watershed include minks , muskrats , and short @-@ tailed shrews , and the endangered Indiana bat . Fish , damselflies , mayflies , and other macroinvertebrates also inhabit the watershed . A total of 28 species of fish were observed by the Pennsylvania Fish and Boat Commission in the watershed in 2006 . Earlier , 34 species were observed .

In April 2010 , the Pennsylvania Fish and Boat Commission performed a survey of the fish species residing in Briar Creek Reservoir . The most common fish observed were yellow perch ( 645 specimens ) , brown bullhead ( 322 specimens ) , golden shiner ( 319 specimens ) , white crappie ( 216 specimens ) , hatchery trout ( 153 specimens ) , and bluegill ( 121 specimens ) . The largest fish observed were common carp , of which two specimens between 23 inches ( 58 cm ) and 25 inches ( 64 cm ) were observed . The smallest fish were pumpkinseed , of which 12 specimens between two and four inches ( five and ten centimeters ) were observed . Minnows also live in West Branch Briar Creek .

= = Recreation = =

Briar Creek Reservoir is located in the Briar Creek watershed , on East Branch Briar Creek . It is owned by the Pennsylvania Fish and Boat Commission and Columbia County . It was originally constructed to control floods , but most recreational activities in the watershed take place at this lake . These include fishing , picnicking , and weddings . There are also Pennsylvania State Game Lands in the watershed . The waters of Briar Creek are approved trout waters and the stream is stocked with trout .