

Buttermilk Creek

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Geologists generally agree that the glaciers that once covered Michigan retreated about 11,000 years ago, leaving a great deal of material as it did so. Subsequent precipitation events helped to melt any blocks of ice left behind by the glaciers, creating lakes, ponds, and swamps. The landscape could only hold so much water before the excess started flowing to other areas, and such was the case for an area of Western Michigan currently known as the city of Montague.

For thousands of years the excess precipitation flowed to a lower elevation from a higher elevation, carving an erosion channel into the soil and creating an alluvial fan of sediment at the outlet. This consistent flow of water became known as Buttermilk Creek and provided a supporting base of outwash material on which Montague was established.

Fed by an 810 acre watershed, the length of Buttermilk Creek is 3 miles, with the upper 1/3 being nothing more than agricultural drainage paths experiencing seasonal/intermittent flow. Consistent water flow is found in the lower 2/3 as groundwater outflows and springs provide water that eventually outlets into the White River, which then immediately becomes the head of White Lake.

Buttermilk Creek is quite short and has an extremely small watershed compared to other streams that feed the White River. It is one of the most manipulated tributaries of the White River, experiencing channelization, damming, and piping under the city of Montague.

The earliest manipulation of Buttermilk Creek occurred in 1867 when the Montague Roller Mill was constructed. This steam powered grist mill required water, so a dam was constructed on the West side of Ferry Street. This dam was commonly referred to as the Ferry Street dam.

The city was able to use the water from this impoundment for a number of years to supply the hydrant system providing fire protection. Sometime after 1892, the dam was moved downstream and constructed on lot 2, block 13 of the original plat. This lot was owned by William Osmun, and he had given permission to the city to construct the new dam.

Mary Anderson purchased the lot from Osmun in May 1911 to provide a water supply for her livery stable. She discovered that the water level maintained by the city was undermining the foundation of her livery stable thus

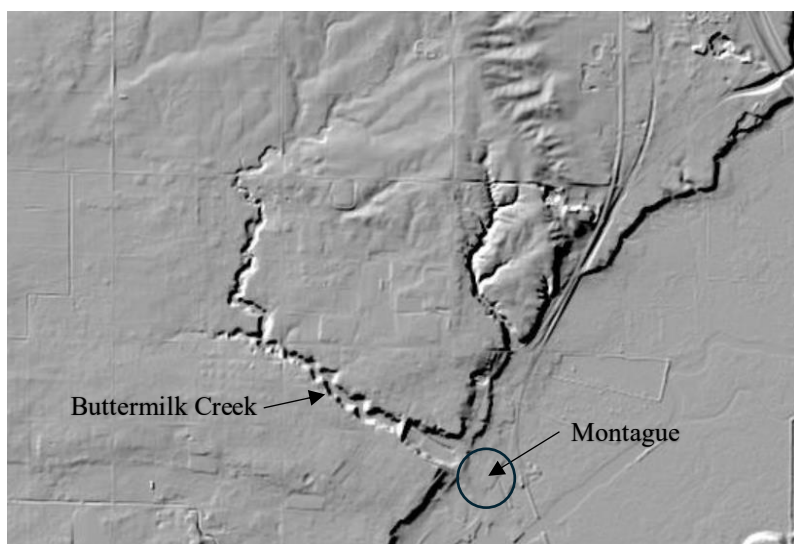


Figure 1. Buttermilk Creek erosion channel



Figure 2. Buttermilk Creek piping under Montague, and early dam location

she removed the gates and lowered the water level. A minor battle commenced between her and the city council as the pump intake that fed water to the city hydrants was no longer submerged.

She forbade the city from closing the gates and flooding her property, but the city council replaced the gates. The city council began condemnation proceedings to secure the lot and summarily obtained an injunction from Muskegon County Circuit Court judge James Sullivan restraining her from interfering with the gates. The local newspaper claimed that she offered to sell the lot to the city for \$1000, but she refuted this allegation and claimed that the lot was not for sale.

A hearing date for the condemnation proceedings had been set for October 18, 1913, but was not needed as Mary Anderson attended the city council meeting 5 days prior and made an offer. She would sell the lot to the city for \$500, keeping the South 20 feet of the lot, and implementing a term lease of the rear 20 feet of the lot of which a part of her livery stable rested upon. The city accepted her proposal and she used the funds from the sale to construct a retaining wall to protect the stable from the water level.

Significant manipulation of Buttermilk Creek occurred by George Dowling when in 1889 he purchased 40 acres West of Cook Street and North of Stanton Boulevard. This property is bisected by the creek and George spent great amounts of time, resources, and money to create a private park. He constructed a dam just west of the Cook Street bridge that impounded a significant amount of water creating a small pond. He stocked fish in this pond and built a boat house for easy access.

He built trails and bridges that emphasized the beauty of the creek. Farther upstream he built a small dam adjacent to the creek that impounded the water that emerged from Buttermilk Springs. The banks were fortified with wooden beams to eliminate erosion into this spring fed impoundment which was stocked with trout.



Figure 3. Buttermilk Creek entrance to underground passage beneath Montague



Figure 4. Outlet of Buttermilk Creek from beneath Montague

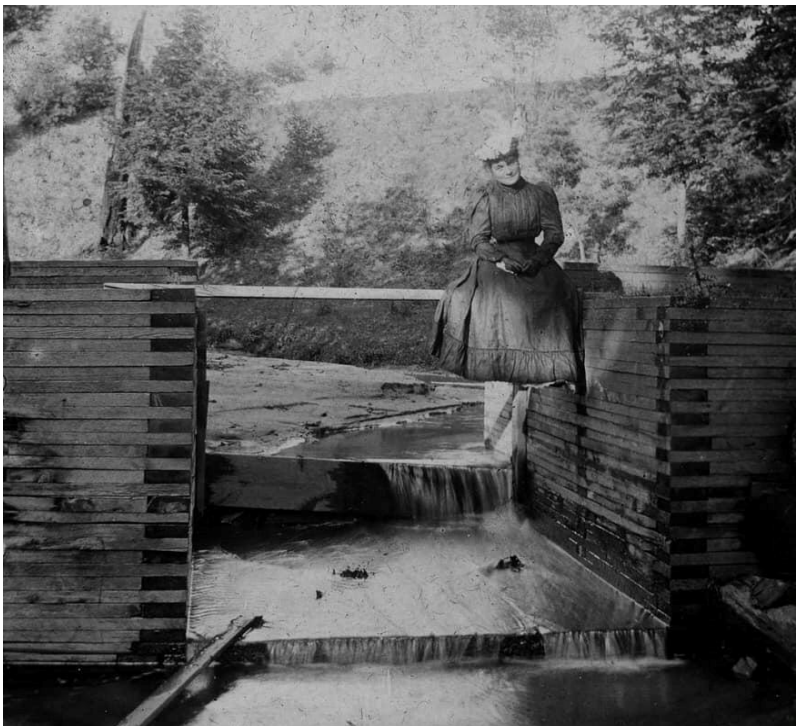


Figure 5. Dam built by George Dowling west of Cook Street bridge

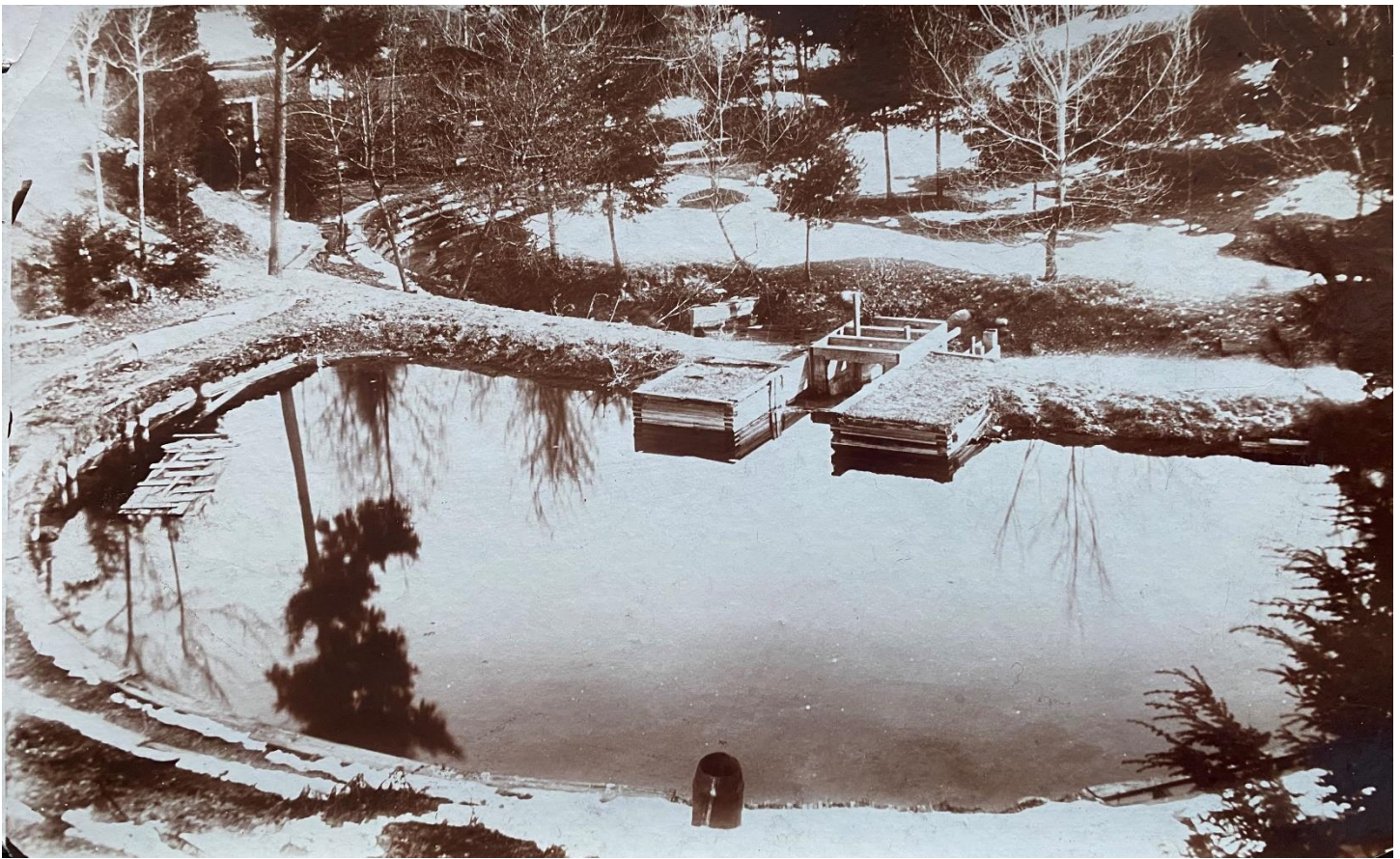


Figure 6. Buttermilk Springs impoundment dam with bath house in the background

Immediately upstream from this dam was a bath house built for relaxation purposes. This bath house was built on the bank of Buttermilk Creek necessitating the use of timbers to stabilize the bank. The shores of the creek were graded to facilitate strolling, and portions of the creek bed were deepened and widened most likely for fish habitat. George had also installed a ram pump at the spring to transfer water to a tower constructed on the upland portion of the property for the purpose of feeding fountains planned for the property.

Conclusive evidence of who named the creek has not been found, but it is probable that efforts put forth by George Dowling creating his private park with the finest achievement being the Buttermilk Springs pond, that the Buttermilk Creek name followed appropriately.

Buttermilk Creek created a travel barrier with its steep banks and one of the earliest travel routes leading from the mouth to the interior used a portion of the creek pathway that had somewhat gentle slopes on both sides. Horse drawn conveyances were able to handle minor slopes but the greater the slope the more perilous the travel became.

This early crossing utilized a wooden dam that was located on a farm owned by Moses S. Perkins. The dam impounded an insignificant amount of water and was thought to only provide a watering point for horses or livestock. As the road system in the area grew this crossing was utilized less and less by the public and more so by the landowner almost exclusively.

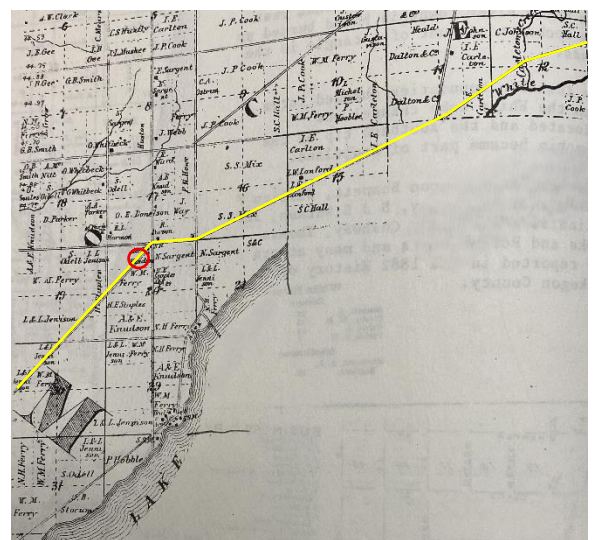


Figure 7. 1867 plat map showing the early travel route and where it crosses the Buttermilk Creek

The dam at this crossing was in disrepair so a new bridge was built above the dam structure circa 1910 by the current farm owner Henry Drumm. A new concrete dam was constructed immediately downstream as well to continue providing a water source for farm use. This new dam functioned for about 30 years until Charles Larson, the subsequent property owner, constructed a sizeable concrete dam circa 1940 that inundated the smaller concrete dam and the remains of the original wooden dam and bridge.

This dam built by Larson became known as the Buttermilk Creek dam and functioned for approximately 3 decades until a flood in the mid 1970's blew it out.

In 1887 a group of men formed a partnership named the Montague Fruit Preserving Company with the purpose of preserving fruit and manufacturing cider, jelly, and vinegar. This company constructed a steam powered cider mill on the banks of the Buttermilk Creek approximately 2400 feet upstream from the Montague Roller Mill.

A dam was constructed on Buttermilk Creek in conjunction with the cider mill to provide a water source for various uses. This dam happened to be 1000 feet downstream of the dam built by George Dowling on his 40 acre property.

On the morning of May 6, 1891, an unknown individual inserted the flood gate into the cider mill dam and caused the water to rise about 4 feet. This increased water level most certainly impacted the dam upstream owned by Mr. Dowling.

It was reported in the Whitehall Forum newspaper that Mr. Dowling removed the flood gate in the cider mill dam about 11 am that same morning sending a torrent of water downstream coming into contact with the Ferry Street dam, which could not withstand the strain and gave way. The damage to the dam was estimated to be about 25 dollars, and it is unknown if Mr. Dowling paid for that damage.

Repairs to the Ferry Street dam were completed the next day but required the water flow to be checked temporarily, thus the dam at the cider mill had a flood gate inserted once more to reduce flow. This action



Figure 8. Bridge crossing and concrete dam on Buttermilk Creek circa 1915. Edmond Drumm property

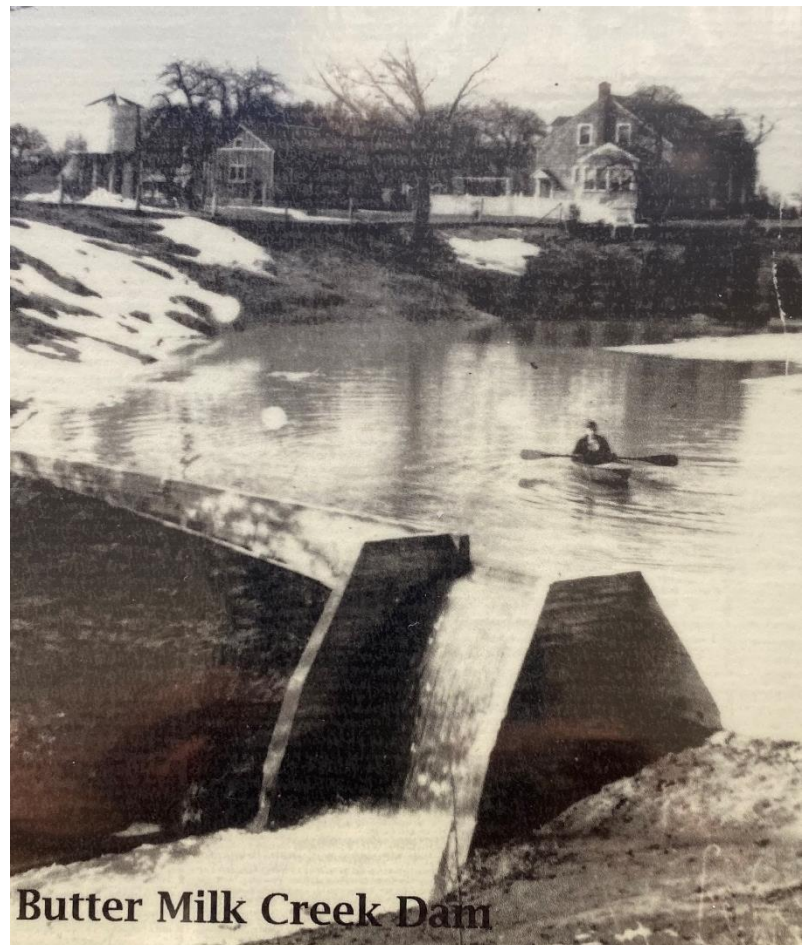


Figure 9. Concrete dam on Buttermilk Creek circa 1940. Charles Larson property

increased the amount of water impounded by the cider mill dam, not to the level seen the previous day but apparently enough that it was impacting the dam owned by Mr. Dowling who upon seeing the repeated impact to his dam, wandered downstream to the cider mill dam once again and removed the flood gate. This action released a head of water that cascaded down to the Ferry Street dam, which fortunately did not sustain any damage. The private park of William Osmun was not so lucky as the ponds that he had established just upstream of the Ferry Street dam impoundment were damaged by the onslaught of water. It is unknown if Mr. Dowling paid for this damage.

The cider mill operated seasonally for another 2 decades producing cider and other products, and in August of 1913 it mysteriously caught fire and burned to the ground.

Buttermilk Creek experienced plenty of manipulation since the settlement of Montague but had become a flooding nuisance starting in the 1960's. The flashiness of rain events led to several flooding events that caused damage to property and businesses. A storm event in 2020 caused flood damage to Montague and city leaders knew something had to be done.

In 2022 the Muskegon County Drain Commission commenced the greatest manipulation of Buttermilk Creek that had ever been seen. After acquiring the required easements from landowners along the creek, the Commission engaged a \$1.8 million project to reduce erosion, improve water quality, and minimize flooding hazards. This project utilized detention areas, grassed waterways, natural channel design principles, removal of the Buttermilk Creek concrete dam, rip rap installation at water inlet points, rock riffle structure installation, woody debris management, and several other management practices to accomplish the goal. After 160 years Buttermilk Creek has returned as a shining natural feature to the Montague area.



Figure 10. Buttermilk Creek pre project construction



Figure 11. Buttermilk Creek during project construction