

THE DESTROYED AND RESTORED BATTLEFIELD
The History of the Jones Falls Watershed

By Mary Vitale, 2008

The epic fight of humans against the inconceivable powers of nature is no novel concept; rather, it is a struggle that has existed since the very beginnings of our era. In many instances, humans have succeeded and built industrial steel paradises; in others, such as the natural catastrophe of Hurricane Katrina in New Orleans, nature seems unbelievably able to strike back. But a hidden, yet living battleground is concealed here in our Baltimore backyard. The Jones Falls River, born into existence thousands of years before Baltimore was inhabited by humans, was once pure and healthy. Years later, the river coexisted peacefully with Native Americans and early European settlers. The Jones Falls adopted its name from one of the first European pioneers, David Jones, who settled in 1661 on 380 acres along the eastern banks of the river. Subsequently, Jonestown was formed, and Baltimore Town was formed in 1729 on the western banks. Nature and humans were able to easily co-exist, with the clean river being highly beneficial to the sustainability of the town for transportation, drinking water, and enjoyment. Wooden ships would sail through the brackish waters of the lower river until they hit mostly fresh water to rid their ships of teredos (shipworm). It is even said schools of porpoises would swim up from the bay into the lower areas of the river.

In 1745 the two towns were united to form the city of Baltimore. As the city built up and pushed closer to the river's natural territory, the river became an inconvenience, splitting the city into halves. In 1766, Harrison Marsh was filled in, Harrison Street was developed, and a canal was built to divert the river from its natural horseshoe-shaped bend. However, when the river, losing its natural area for overflow rains, was pressured with excess floodwater, it would return to its natural course and submerge the primary business district of the city. The first recorded flood in 1786 swept away a newly constructed German Calvinist Church and several Baltimore residents drowned in the high waters. The canal was deepened in 1805, but this by no means ended the instability of the modified river. On July 14, 1837, the river reached 20 feet above its bed. Few bridges survived the flood, and the raging waters also killed an estimated 19 people. A flood in 1868 was one of the worst for the Jones Falls; Harper's Weekly reported the drowning of at least 50 people, and the flood cost Baltimore residents over a million dollars in property damage. Flooding on the Jones Falls has occurred as recently as Hurricane David and Hurricane Agnes in the late 1970's.

Still, however, the city was able to benefit from the Jones Falls. Jonathan Hanson, who built the first mill on the river, declared that although the Jones Falls was of short length, the river "affords more mill seats than any other" in the US. By 1803 there were 12 mills powered by the Jones Falls, and in 1825 Baltimore became the leading flour-milling city in the world. Baltimore also produced great amounts of cotton duck canvas for sails, and the production of canvas for covered wagons, tents, and military equipment continued into the early 20th century. Mills also produced industrial parts for steam engines and other technology during the time. Railroads became built up along the Jones falls for the mill industries; the Baltimore and Susquehanna Railroad laid tracks down first, and shortly after the Northern Central Railway and Maryland and Pennsylvania Railroads ran lines. However, all the mills closed by 1970, and the railroad operation ended in 1980. The MTA later adopted the Northern Central rail beds for light rail.

Additionally, the Jones Falls provided the city with its drinking water for many generations. The Chattolane Spring Water Company bottled water from the falls beginning in 1807. In 1807, the Jones Falls was used as the water supply for Baltimore, although in the mid-1800's it became clear the polluted river was an inadequate water source. In 1865 Lake Roland was created to provide the water for the city. However, the river began tracking in great amounts of sedimentation from the erosion of the river banks. Lake Roland lost much of its water storage capacity, and the reservoir was abandoned in 1901. The bottled water company closed its doors in 1975. The city could no longer receive its water supply from the polluted river and had to tap elsewhere.

By 1910, the lower Jones Falls had been reduced to “an odorous, poisonous water hole” according to a local Baltimore paper of the time. Sewage ran into the river, and the factories and mills along its banks had poured remnants of their industrial waste into its water. Baltimore had attained the highest typhoid rate in the country, and public health officials encouraged the conversion of the last two miles of the river into an underground sewer. A major engineering operation of its time was set into affect and the river was channeled into three large tubes, which reduced to one that emerged shortly before entering the Chesapeake Bay. The project was completed by 1915, and at the dedication the master of ceremonies Henry Barton Jacobs claimed he had come to “bury the Jones Falls—not to praise it”. The Jones Falls Expressway was built along side the river and on top of the tunnel. Runoff from the expressway has further polluted the river.

The river only became more polluted from the many farms that span its banks upstream from the city. In Park Heights, cattle often cause the breakdown of the stream banks. Fields made for produce or cattle promote less trees, which decreases shade which would naturally cool the river, resulting in a rise of river temperature. Nitrification, excess nitrogen runoff from manure and fertilizers, encourages algal growth, which further depletes the stream of dissolved oxygen. Sedimentation from erosion, causing higher riverbeds and sandbars, creates stagnant, oxygen-depleted areas of the stream. Fish lose breeding grounds as well as the dissolved oxygen they need. Non-point-source pollution inundates the river with toxic runoff after each rain; the river absorbs pesticides and chemicals from lawns, oil and runoff from roads, bacteria, and toxic metals, often broken down from acid rain. Schools of porpoises certainly no longer swam through the stream; even crayfish, one of the most durable organisms to have once inhabited the river, could no longer tolerate the pollution levels. By 1983, the water quality was so poor the EPA was led to name Baltimore's storm water as the most contaminated of 28 metropolitan regions. Additionally, the old pipes of Baltimore's approximate 3,000 miles of raw sewage pipes would often break down, and raw sewage is poured into the tributary streams and groundwater. The river became so polluted it was dangerously unhealthy to swim in or eat the fish caught in the river.

It was realized then by residents, political leaders, and environmentalists alike, that a need for action was present. For a river which had given so much to the city, it was time to give back. The Jones Falls Watershed Association (JFWA) was formed in 1997 to protect and restore the river and its tributaries. It is a volunteer-driven grassroots organization credited with bringing attention back to the river and building awareness of the stream and stream valley as natural resource assets for the community.

A watershed is a segment of land that's runoff water drains into a common waterway. The Jones Falls Watershed encompasses 58 square miles within Baltimore County and Baltimore City and is the most urban of the three watersheds contributing to the Inner

Harbor. The health of the Chesapeake Bay can largely be aided by the concentrated effort on each individual watershed.

Since its formation over a decade ago, the JFWA has had great success in raising awareness for the watershed, under the mentality that encouraging city residents to enjoy the watershed will promote them to understand and protect it. Under the guidance of Michael Beer, a retired Johns Hopkins University professor, the Watershed put on its first large-scale public program on September 19-20, 1998. The incredibly successful, now annual, Jones Falls Celebration opened with the Concert Under the Arch. The following day included canoeing and kayaking, rock climbing, children's activities, walking tours, and bicycling on the unthinkable closed-down section of the Jones Falls Expressway. This tradition has become increasingly popular among the residents of Baltimore over the years with, more than 10,000 people attending annually, attracting many new volunteers for the JFWA.

Volunteers for JFWA participate in trash cleanups, water quality monitoring, buffer plantings and outreach. Additionally, volunteers assist with outreach and work with large landowners in the watershed to improve land management practices to improve water quality. There has been a great amount of push for the city to solve its sewage leaking problem, and hope for less pollution of the Jones Falls becomes more real each year. The JFWA has been incredibly successful, much to the help of its thousands of members, volunteers, and concerned Baltimore residents.

The Jones Falls has undoubtedly endured more than its fair share of abuse from human activity; fortunately, Baltimore can now confidently say we look forward to the days that humans and the Jones Falls can live in peace together again.