
Thinking Like a Watershed

Black Earth Creek Watershed Association

Fall 2014

Finish Line in Sight This Fall for Wolf Run Trail Project

Christopher Long, BECWA Board Member

As walkers, anglers, and bikers discovered beautiful Wolf Run Trail at Mazomanie this year, wheels were turning to complete the path along newly restored lower Black Earth Creek from the Village to Wisconsin Heights High School in time for winter recreational use.

Wolf Run Association, a community nonprofit organization, planned to begin construction of the second half of the two-mile trail in mid-October, with funding from the Wisconsin Department of Natural Resources, Dane County Parks Department, Wisconsin Heights School District, Alliant Energy Foundation, and local donors. The trail, which begins at the east end of Crescent Street in downtown Mazomanie, was expected to be completed to the WHHS south parking lot by December.



“We’re delighted to finally have the finish line in sight after so many years of hard work by so many to make this dream a reality. We’re grateful to our many project partners, beginning with the generous landowners without whose support Wolf Run Trail would not exist,” said Scott Stokes, president of Wolf Run Association.

The 10-foot gravel path provides the only public access to lower Black Earth Creek, a nationally renowned trout stream, from Olson Road to Mazomanie. Following a multi-year restoration project, Black Earth Creek now flows freely from its headwaters for the first time in 150 years and the improved lower reach is growing in popularity

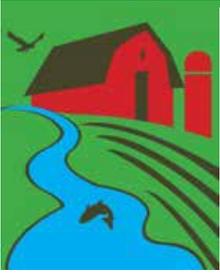
with kayakers and canoeists as well as anglers. The new trail is open to four-season recreational use, including snowmobiling, cross-county skiing, and snowshoeing during the winter months.

Wolf Run Association is the lead organization in a comprehensive, \$1 million effort to improve the lower Black Earth Creek area, beginning with decommissioning of the old dam at Mazomanie in 2012. This multiyear effort, by a partnership of both public and private stakeholders, has received strong community support. John Wick, founder of Wick Buildings in Mazomanie, and wife Helen donated the newly constructed picnic shelter near the Crescent Street trailhead in Mazomanie. Village resident Bill Stokes contributed tables and chairs. To learn more about Wolf Run Trail, go to www.wolfruntrail.net.

Just a short walk away, the Lake Marion redevelopment project is also underway. Construction by the Village of a new groundwater well to replace the old diversion dam as the water supply for the millpond built in 1855 began in late July and was expected to be completed by the end of October. To learn more about the Lake Marion project, go to www.facebook.com/lakemarionproject.

Christopher Long is manager of the Wolf Run Trail and Lake Marion projects.





**Black Earth Creek
Watershed
Association**

BECWA.ORG

Become a BECWA member or renew your membership

Send your check with name, address and email to:

David Lucey, 7952 County Highway K, Cross Plains, WI 53528

Lifetime Member - \$100 Business - \$50 Watershed Patron - \$35
Household - \$25 Basic - \$15

For the wise management of the land and water resources in the Black Earth Creek Watershed.

BECWA Goals

- To protect, conserve, support and advocate for the wise, long term management of the physical, biological, environmental, cultural and historical resources that constitute the heritage and future of the watershed.
- To foster and encourage citizen and locally-based stewardship among the many members of the Watershed community.
- To provide a forum for civilized discussion of issues and problems in the Watershed.

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Mazomanie to Black Earth Trail Explored

With the final leg of the Mazomanie to Wisconsin Heights trail to be completed this fall, a local group is looking at extending the trail on to Black Earth. Such a trail through the valley is expected to provide economic benefits to local businesses, offer a safe route to school for students, and present opportunities for people to engage in a variety of recreational exercise. At a meeting chaired by District Administrator Mark Elworthy, a group of approximately 20 individuals representing local landowners, the DNR, Dane County, and the DOT identified the issues that needed to be addressed before any trail extension can occur. It was agreed that additional research was needed to identify possible trail routes and the cost associated with those routes, including purchasing easements, building bridges over the creek and boardwalks over wetlands. Meeting participants recognized that a top priority is to involve local landowners at all steps in the process, as a trail is dependent on acceptance and cooperation of all involved. Another meeting will be held in a few months to share information and to discuss what comes next.

Dave Lucey

BECWA QUIZ

Several construction projects are ongoing within the Village of Cross Plains to replace the bridge over Highway P, relocate businesses in anticipation of upgrading the Highway P – Highway 14 intersection, and improve Lagoon Street. What are the potential effects of those projects on Black Earth Creek?

- A. Silt fences and other mitigation methods completely eliminate any chance of construction impacts on Black Earth Creek.
- B. Construction will not affect the larger Black Earth Creek but is certain to harm the smaller Brewery Creek, which is more vulnerable to degradation.
- C. Heavy rainstorms, like the ones that occurred in early September, increase the potential for impacts of construction on Black Earth Creek because they increase runoff from bare soil.
- D. There is no way to avoid having the construction cause high mortality of brown trout in Black Earth Creek downstream.
- E. Trout are not affected by construction because they can tolerate sedimentation, but the invertebrates and plant life in Black Earth Creek will suffer inevitable losses.

Answer on page 6

Life on the Creek

John Donaldson

In 1957, my family moved to a house along Highway 14, just west of Black Earth and directly across 14 from the Black Earth Creek. So began my life along the creek.

I've always bragged I had the foresight to leave Illinois and move to Wisconsin when I was three. Actually, we moved to Black Earth because my father accepted a position in Madison – but it was a good move for me as well: The creek proved to be a major part of my upbringing. Not only was it a place where I learned how to swim, fish, hunt and trap, but it helped instill in me a sense of history and, more importantly, a conservation ethic that persists to this day. As a parent and grandparent, my concern for the environment is stronger than ever, and I hope we can continue working to leave our descendants a world at least as good as the one we inherited, and hopefully better.



Our house was on the north side of the highway, and the creek sidled up next to 14 on the south. As such, I could walk out my front door, carefully cross the busy highway, and 30 seconds later be alongside the creek. Long before there was a highway, about a century before we arrived, the area was home to a grist mill that ground the wheat farmers were growing in the mid-1850s. When we moved there, you could still see twenty 4 x10 timbers jutting out into the creek from the north bank. These once supported the mill and its water wheel. The remnants of the dam that backed up a mill pond extending to present-day Black Earth had formed a thunderous rapids that scoured out a hole we estimated to be as much as 12 feet deep. I remember my father looking at the creek and exclaiming, “Out west, this would be called a river.”

Later he learned that in the 19th century, some maps did indeed label this tributary of the Wisconsin as “The Black Earth River”. The first European explorers found a waterway that wound through a vast expanse of tall grasses that through the millennia had laid down layers and layers of fertile soil. The creek at its headwaters is the

product of countless glacial springs that make it a classic coldwater trout habitat. Black Earth Creek is essentially what remains of a giant glacial river that flowed through the valley roughly 15,000 years ago, after the most recent glacier stopped in the Cross Plains area and began to melt. As such, the creek is unique in that it starts in Wisconsin's glaciated region and crosses the Ice Age Trail to finish its journey to the Wisconsin through the Driftless Zone. The topography of the upper Black Earth Creek is notably different, the hills ground off by the ice sheets versus the craggier hills further west. Contemporary trout fishermen, however, value the stream for much of its length.

While history is interesting, the real appeal for red-blooded American boys in the 1950s and 60s was swimming. Today, no doubt, parents would frown on the unsupervised use of this impromptu recreational facility,

but in those days before cable television, the Internet and smart phones, kids could and would be kids. Around 1969 our family posted a “No swimming” sign at the site after some kids drifting downstream from Black Earth shot the rapids on a homemade raft: One of them, still clad in his boots, jumped in and drowned. In the last analysis, however, the sign was precautionary, since people using the creek as it flowed through our property, be it for swimming, fishing, bow-fishing or hunting, rarely asked permission anyway.

Donaldson's Hole was one of the deepest holes in the creek. I was seven when my brother Bill, who was 15, decided he'd had enough of ferrying me on his back across the hole to the sandbar on the south side. One day he and his friend Carl captured me and swung me back and forth three times before tossing me in, counting as they swung. It was sink or swim, so I decided to swim, having heard the horror stories about the creatures that lived in the depths of Donaldson's Hole and seeing the snapping turtles sunning themselves on the ancient exposed tree branches that jutted out of the water downstream.



After dog paddling my way across to the sandbar, sputtering obscenities as best as a seven-year-old can, Carl and Bill doubled over in laughter on the opposite bank. I was secretly grateful, however.

Soon I was swimming like a fish...literally. I found my favorite way to swim was underwater, and that if I approached the rapids from the south side on a sunny day, I could bear witness to wondrous sights. Sometimes, if I was lucky, I'd catch a glimpse of some of the leviathan trout, or perhaps a golden carp or an ugly sucker or redhorse, all of which favored the water boiling around to the sides to the main torrent of water that surged through the crumbled dam. It wasn't long before I was trying my hand with a fishing pole.

In those days, you could fish the creek prior to opening day using live bait, so we were often seen fishing along the stream on spring days. The real fun, however, started that first Saturday in May, the opening day for game fish: around here that pretty much meant trout, though large and smallmouth bass were occasionally caught. The daily bag limit for trout in those days was ten, and it was not unusual to hit that limit. My friends and I mainly fished the Black Earth and Vermont creeks, spending countless hours casting worms and later spinners. Sometimes we would ride our bikes out into the Town of Vermont to camp alongside Bohn Creek and wait for Saturday morning. Bohn is a tributary of Blue Mounds Creek, which joins forces with the Black Earth near Arena.

As a teenager I learned how to trap furbearers, primarily muskrats and mink, and in those years when fur prices spiked, I made a significant amount of money for my efforts in the fall. When prices really spiked in the mid-70s, trapping helped me through a couple of years of college. My line encompassed property that for the most part is now state-owned or enrolled in the Natural Heritage Land Trust. Times have changed.

As productive as the Black Earth Creek was in my youth, it was also potentially in trouble. The millponds each village had in those days to power mills and provide ice had long since been removed or, in Mazomanie's case, scaled back. This allowed for a more free-flowing creek. In my youth, however, sewage treatment was in its infancy, and water quality was suffering. The agricultural practices of the

day also often did not serve the creek well, and nutrient runoff was taking its toll as well.

The creek benefitted greatly when Cross Plains, Black Earth and Mazomanie replaced their treatment facilities in the 60s and early 70s. Later on, in the 90s, when Black Earth, Mazomanie and Arena were all faced with more upgrades ordered by the state, the three villages decided to join forces and build a joint plant downstream from Mazomanie. Cross Plains did not join in on the Dane-Iowa Water Treatment facility, finding the cost of pumping its raw sewage to a treatment facility ten miles to the west prohibitive, but has made significant improvements to its own treatment facility.

Meanwhile, the state over the decades has been working with farmers and other landowners to reduce run-off, improve stream banks and create new trout habitat. Our family sold the state all of our land south of the highway, and the drainage ditches I used to trap nearby now drain fields that are enrolled in the Natural Heritage Land Trust, which guarantees they will remain in agriculture.

Things are far from the perfect. We still have fish kills, the result of both urban and rural runoff that sometimes turns the creek's crystal clear water into something more



Off to fish near BEC!

resembling chocolate milk. But I can say from 57 years' experience along the creek, they are better now than they were then. I am thankful my parents decided to settle in the Black Earth Valley, next to the Black Earth Creek. I hope we as a society can stay the course so future generations can find as much enjoyment there as I did.

John Donaldson worked for News Sickle Arrow newspaper for 42 years, and was named editor in 1975. "In my 32 years as editor of NSA, I quickly learned the community I served was connected by three things; USH 14, the rail line, and the Black Earth Creek. BECWA has emerged as a local organization that recognizes the importance of the creek and its tributaries to the community as a whole."

Black Earth Creek Fisheries Report

Kurt Welke, Fisheries Biologist, WisDNR

How appropriate that BECWA had asked for an update on the creek, especially after a colleague had given me an April 1957 copy of the “Wisconsin Conservation Bulletin”. That particular issue waxed poetically about the recent formation by “alert and farsighted” farmers, agricultural agents and other agency representatives to incorporate the Cross Plains-Black Earth Valley Watershed Association (CP-BEVWA). Does that acronym look somewhat familiar?

Far sighted indeed. 2014 brought major stream work projects along the creek; The re-meander through Zander Park, bank stabilization and in-stream habitat improvements near Mazomanie and the fine-tuning of work done in 2013 on the upper reaches of what had been the old millpond behind the now abandoned Mazomanie dam.

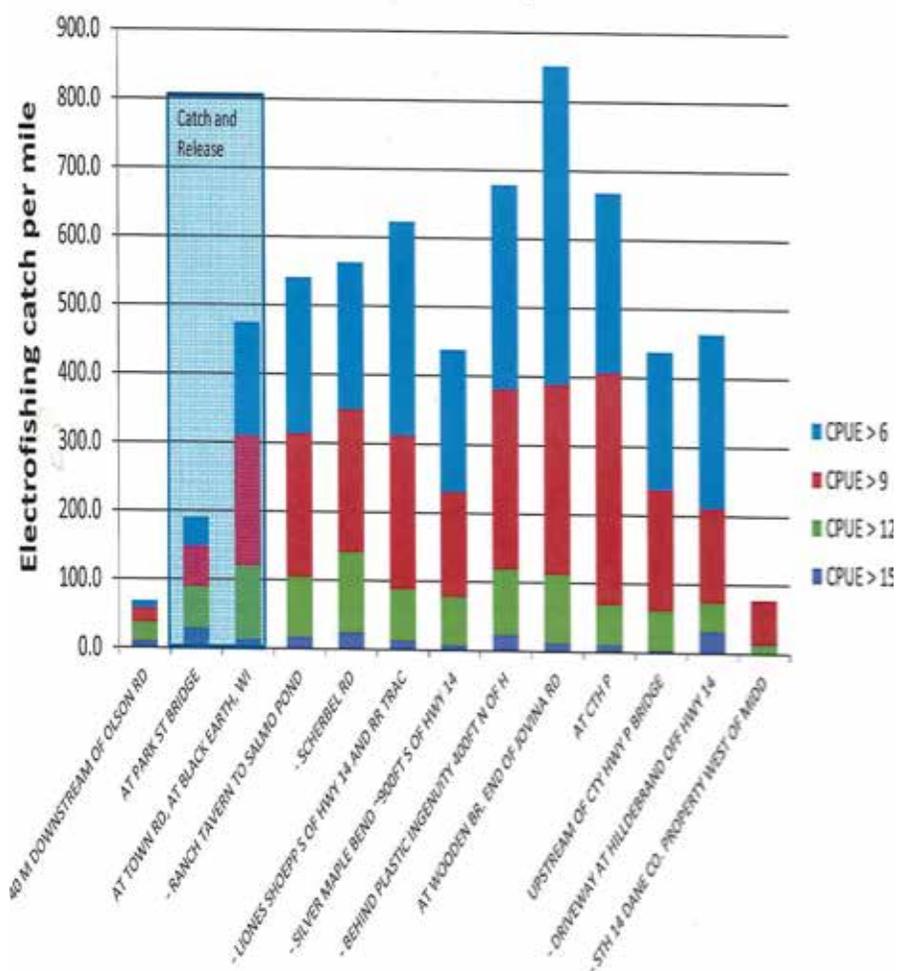
And the fish? Data from the annual summer trend stations sampled in Cross Plains and at Park Street reveal the stream’s changing character along its course. Upstream the fish community is dominated by smaller ‘stock’ sized fish. Black Earth Creek ranks in the 93rd percentile in terms of numbers of >6” in comparison to streams statewide. Downstream, the size structure increases and larger fish (those exceeding 12”) occur more frequently than upstream. Percentage-wise, lower BEC is in the 96th percentile of streams statewide for fish >15”.

In early April 2014, DNR repeated its spring population estimate. This survey has been done almost every year since 1989 and measures numbers of yearling and older fish. Later in July, crews sampled 11 locations referenced above to measure catch rate and size structure. Generally, we noticed reduced numbers at every station.

We attribute this to a more lengthy and severe winter in 13-14. Regionally, we have noticed reduced numbers in many streams that parallel the natural variation we saw in Black Earth. The good news is fish numbers are still strong and condition is excellent.

BEC is being considered in the re-structuring of regulations aimed at simplifying the rules fishermen follow when angling. South Valley road will likely serve as the dividing line between a 3 fish X 8” base regulation upstream and a 3 fish X 12” maximum size limit downstream.

Average Brown Trout CPUE by station for Black Earth Creek (survey years 2002-2013)



Watch for 2014 results in the spring newsletter.

Update on the Occurrence of New Zealand Mud Snails in Black Earth Creek

Bobbi Peckarsky, BECWA Board Member

As reported in the Spring 2014 BECWA Newsletter, a harmful invasive species, the New Zealand Mud Snail (NZMS) has been identified in samples collected in 2011 and 2012 by the Wisconsin Department of Natural Resources (WDNR) biologists in a popular fishing destination of Black Earth Creek downstream of South Valley Road. These snails are excellent dispersers that can close the openings of their shells (opercula) and thereby survive out of water for several weeks, as long as they are kept in a cool, moist environment. The suspected source of the invasion of NZMS to Black Earth Creek is that they have been transported between streams on the bottoms of wading boots that were not properly cleaned.

Once they arrive at a new stream habitat, these snails are able to rapidly expand their populations because they reproduce asexually (as clones). Population sizes have been reported to reach as high as a half million snails per square meter of stream bottom in the Western US (Wyoming, Montana), where they are reported to have invaded from New Zealand in the late 1980s. Presence of these snails in Black Earth Creek could spell trouble for native snails and other invertebrates, as well as the fish that rely on those invertebrates as a food source. NZMS can pass unharmed through the digestive systems of fish, and thereby do not provide a sustainable food source for the trout in Black Earth Creek. Therefore, it is essential that we do as much as we can to prevent further spread of this species.

The WDNR, in collaboration with the Wisconsin River Alliance and UW Extension are conducting surveys in other popular fishing destinations throughout Wisconsin to determine whether the NZMS has dispersed to other streams. With the help of many citizen science volunteers, 65 stream samples have been inspected and no NZMS have been observed outside of Black Earth Creek. Samples from 2010 also had no NZMS suggesting that the invasion occurred between collections in 2010 and 2011. These sample inspection efforts are highly labor intensive, and therefore, the WDNR is collaborating with the scientists at the US Geological Survey, US Fish and Wildlife service, UW Madison, and UW Stevens Point to use a molecular monitoring tool (eDNA) that could detect the presence of NZMS from water samples. Efforts to develop that

method are promising to be more effective than traditional inspection of stream invertebrate samples.

There is an ongoing effort to learn the extent of the distribution of NZMS throughout the Black Earth Creek watershed by the WDNR and students from Wisconsin Heights High School and the UW Madison. Of many samples taken by the WDNR at other locations on Black Earth Creek, NZMS were confirmed from only one additional location, just south of the wastewater treatment plant in Cross Plains, 4 miles upstream of the South Valley Road site where they were originally discovered. Testing of 4 small snails using eDNA methods also identified NZMS about 2 miles downstream of South Valley Road. In May and June 2014, students confirmed that the NZMS were not present in the section of stream adjacent to Olson Rd at the intersection of KP, nor were they present in 8 of 9 locations throughout the stream restoration area near Mazomanie and the Wolf Run Recreational Trail. However, experts confirmed the identity of 3 NZMS from one location about a quarter mile upstream of the Highway 14 bridge. It is unusual to find this snail in such low abundance, possibly indicating that it has just recently invaded this site. Students will soon be taking more intensive samples at this location to determine whether populations are increasing.

The observation that distribution of the snails is not contiguous in Black Earth Creek (sites in between those with confirmed positives did not have NZMS) supports the notion that people moving from site to site without cleaning their boots are spreading the snails, rather than natural dispersal by the snails. This notion further reinforces that proper behavior of people using the creek is the best way to prevent further spread of these invasive snails.

Answer to the BECWA Quiz is C.

While silt fences and other mitigation methods are generally effective ways to reduce negative effects on stream biota of sediment and associated chemicals, etc. running off the exposed soil at construction sites, Mother Nature often foils those efforts by causing high runoff during heavy rain events. Stream plants, invertebrates and fish are all sensitive to increased sedimentation, which can occur in streams of all sizes.

Reflections on Village of Cross Plains Road and Building Projects

Dan Buckland

Various construction projects continue throughout the main street corridor of Cross Plains. They included Millpond Parkway rebuild, Highway P bridge and State Route 14, which should begin around March 1, 2015 and continue for close to 2 years (yikes).

A great deal of care has been taken to protect the creek during the bridge replacement/move. At one point MG&E had to bury a new 8-inch gas line under the creek at the new bridge. To do this they dammed the creek for several days with a massive water filled bladder and used three large pumps to move water approximately 200 feet down stream. It was an amazing thing to see. An environmental engineer was on sight during the entire procedure. He was very aware of New Zealand Mud Snail and had a very specific course of action to prevent the spread of the critters. County Highway "P" bridge should be open by the end of October.

Lagoon St, soon to be re-named Millpond Parkway, is on track to be complete by the end of October, approximately a month late but oh well! Not sure how many, but several storm drains will be directed to the detention pond which sits between Millpond Parkway and the creek. Looks good!

During rebuild construction, Hwy 14 traffic will be rerouted south onto Bourbon Road. Three temporary stoplights will be in place on Bourbon Rd. between Cty KP and Hwy P.

Kalscheur's Dodge Chrysler dealership, located immediately West of Brewery Creek and between BEC and Hwy 14, is under construction. To protect the creek from storm water run off, the perimeter of the lot will be paved with a pervious material and they will also take advantage of a couple detention swales.

A building project has been approved by the village board and will be located at the West end of the village on Highway 14. Zander Creamery and nearby buildings will be razed soon to make way for a 45 unit apartment building including underground parking. Demolition will begin by mid October. I currently have no knowledge of efforts to protect the creek and I am concerned as the building will be very close to the creek.



Photo: *Dan Buckland*

WARNING

These waters contain New Zealand Mudsnails.
Help protect trout streams by preventing their spread.

- 5mm or less
- 5-6 whorls
- Right-side opening

BEFORE YOU LEAVE THIS WATERWAY:

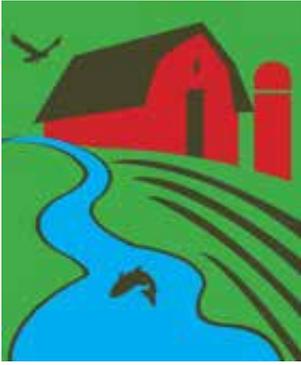
ALWAYS
INSPECT equipment and **REMOVE** attached plants and animals (required)
DRAIN all water from equipment (required)

BETTER
SCRUB equipment with a stiff brush, including crevices, and **RINSE** equipment with tap water

BEST
SOAK in 2% Virkon Aquatic solution (2.7 ounces per gallon) for 20 minutes and **RINSE** clean at least 100 feet away from surface waters.

Prevent the spread of invasive species, It's the Law!

For more information scan this code using your mobile device
<http://dnr.wi.gov>



Black Earth Creek Watershed Association

c/o Greg Hyer
4296 County P
Cross Plains, Wi 53528

BECWA SIGN RENEWAL PROJECT

Barbara Borns, BECWA Board Member

Perhaps you have noticed signs around the watershed that say “WELCOME TO THE BLACK EARTH CREEK WATERSHED.” You may also have noticed that most of them are pretty beat up. BECWA is working this fall to replace them with new signs and we could use your help.

So far we have found 4 signs at these locations:

- North side of highway 14 just east of Cleveland Road
- ½ mile south of highway 14 on east side of county P
- Highway K and P north of Cross Plains
- Garfoot Road just north of Braun road intersection.

I believe there are more than these 4 signs around the watershed—so if you know where they might be please email me at PrairieBarbara@gmail.com.



Keep your eyes open for new and more visible signs—hopefully yet this fall.
