Thinking Like a Watershed Black Earth Creek Watershed Association

Fall 2015

New Signs for the Watershed

Barbara Borns, BECWA Board Member

It started out looking like a simple, straight forward task. In December of 2014 our BECWA board of directors reviewed the condition of the 4 existing, 25 year old signs which said "WELCOME TO THE BLACK EARTH CREEK WATERSHED". After concluding they were not salvageable we decided this was an opportune time to expand our coverage and identification of the watershed by installing 10 new signs at the intersections of the watershed boundaries with major roads: highways 14 (east and west), 78, (north and south), P (north and south), K, KP, 19 and F. Dave Vondra from DEW signs in Black Earth assisted us with selecting the material, design and then preparing the signs. In a fund raising effort to pay for the signs, we appealed to our BECWA membership. Many THANKS to the 23 folks who donated \$50 or more (15 of those gave \$100. or more), The Shoe Box and the State Bank of Cross Plains. We were also successful in getting a grant from the Dane County -Environmental Council—Community Partners Grant Program. We offered donors the opportunity to dedicate a sign either "In memory of…" or "In honor of…" a person of their choice which will be noted on a plaque on the support beams.

After we succeeded in securing the necessary funding we proceeded to the task at hand. Earl Brandt, Town of Vermont resident and woodworker of considerable skill, encouraged us to see if there would be a Boy Scout who might be interested in using this project as part of earning a badge. To that end we were able to identify John Stenklyft who began his freshman year at the Middleton/Cross Plains high school in September 2014. John was looking for a project to earn his Eagle badge and applied to work with us. We appreciate the help John and is troop colleagues have provided, as well as his parents; Beth and Mike.

What started out looking like a straight forward task escalated into a much more complex effort. After identifying landowners, we sought permission from them to place the signs. This involved not only having willing landowners

but assessing the topography so the signs would be visible as people drive, bike or walk by. Once that task was accomplished, we had to call either the State Department of Transportation or Dane County to advise on avoiding the highway rights of way, then call the Digger's Hotline to avoid cutting cables. Dave Lucey has been the leader of this part of the sign placement and we appreciate all his efforts.

As this newsletter goes to press I'm pleased to report all 10 signs have now been installed. The smaller signs will be placed yet this fall.

In addition to these 10 large permanent signs, BECWA is also joining BECCO and Trout Unlimited printing smaller yard signs that will be placed throughout the watershed from Middleton to Mazomanie. So be on the outlook for both varieties of signs reminding us all of what a treasure we have in the Black Earth Creek and how we are all responsible for seeing to

it that it remains healthy.

Bottom left to right: Luke Zingg, Alec Hanson, John Stenklyft Top: Barbara Borns, Beth Stenklyft, Mike Stenklyft, Dave Lucey



Photo: Greg Hyer



Black Earth Creek Watershed Association

BECWA.ORG

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 managment of the physical, biological, environmental, cultural and historical resources that constitute the heritage and future of the watershed.

- To foster and encourage citizen and locallybased stewardship among the many members of the Watershed community.

- To provide a forum for civilized discussion of issues and problems in the Watershed.

Board of Directors

Greg Hyer, *President* Bobbi Peckarsky, *Vice-President* Barbara Borns, *Secretary* David Lucey, *Treasurer* Richard Anderson - Steve Born - Dan Buckland Briana Burns - Kathy Haig - Christopher Long -Debra Weitzel

Deb Nemeth - *Newsletter Design* Barbara Borns - *Newsletter Editor*

Event in the Watershed TROUT AND TRAIL FEST SATURDAY, SEPTEMBER 19, 2015 1-4 PM Wolf Run Trail, Mazomanie, WI

BECWA will have a display table along the Black Earth Creek featuring:

Dr. Bobbi Peckarsky and BUGS BY THE CREEK



Thank you to the landowners!

The recently completed BECWA sign project would not have been successful without the cooperation of ten watershed property owners. These new signs could not legally be placed in the highway right of way (ROW), thus needed to be sited on private property, as close to the ROW as possible. BECWA would like to extend a huge Thank You! to the following cooperating landowners for consenting to allow one of our signs on their land, marking entry into the Black Earth Creek Watershed.

Top Promotions Mahala Kruchten Family Walter Naujeck Norbert Kramer Tom Helt Family Mark Winch Rocky Hill Farms Yahara Materials Jane and Greg Hyer Blue Star Dairy

How Much Do You Know About BECW?

Test your knowledge - True or False:

1. The water temperatures in Black Earth Creek are buffered from extremes of weather because it is a spring-fed stream.

 Stream organisms suffer irreversible consequences of chemical pollution.
Stream organisms may never recover from modifications of stream channels and disruption of the riparian zone.

4. The invertebrate fauna of the re-meandered section of Black Earth Creek indicate that the reconstruction did not improve stream habitat compared to the channelized (straightened) section upstream.

5. The re-meandered section of Black Earth Creek withstood extreme flooding last spring because connection to the floodplain absorbed the floodwaters.

6. Trout in Black Earth Creek are harmed by extreme cold weather because the stream freezes to the bottom.

7. Recovery of the macrophyte plant life in re-meandered section of Black Earth Creek in Cross Plains was slower than that of the invertebrates and fish.

8. The invasive snail (the New Zealand Mud Snail), first discovered in Black Earth Creek in 2011, has now spread throughout Black Earth Creek from Cross Plains to Mazomanie.

9. The invertebrate communities in Black Earth Creek are healthy and capable of supporting a healthy trout fishery, even in the reconstructed sections of the stream.

10. Black Earth Creek commonly dries during extreme drought conditions, thereby harming the trout fishery.

Answers back page. Quiz prepared by Bobbi Peckarsky.

NHLT Awarded Land Trust Accreditation

Jim Welsh, Executive Director- Natural Heritage Land Trust

Natural Heritage Land Trust (NHLT), a strong Black Earth Creek conservation partner, has achieved land trust accreditation from the Land Trust Accreditation Commission, an independent program of the Land Trust Alliance. Natural Heritage Land Trust's accredited status demonstrates our commitment to permanent land conservation that benefits the entire community," says Jed White, board president. "Our land trust is a stronger organization today having gone through the rigorous accreditation program."

Natural Heritage Land Trust was founded in 1983 and permanently protects natural areas, rivers and streams, wildlife habitat, and working farms in and around Dane County. Natural Heritage Land Trust was awarded accreditation this August and is one of 317 land trusts from across the country (including 10 in Wisconsin) that have been awarded accreditation since the fall of 2008.

Accredited land trusts are authorized to display a seal indicating to the public that they meet national standards for excellence, uphold the public trust and ensure that conservation efforts are permanent. The seal is a mark of distinction in land conservation. "This round of accreditation decisions represents another significant milestone for the accreditation program; the 317 accredited land trusts account for more than three quarters of the 20,645,165 acres currently owned in fee or protected by a conservation easement held by a land trust," said Commission Executive Director Tammara Van Ryn. "Accreditation provides the public with an assurance that, at the time of accreditation, land trusts meet high standards for quality, and that the results of their conservation work are permanent." Natural Heritage Land Trust is a local, non-profit, community-based organization that protects natural areas, wildlife habitat, working farms, lakes and streams, and recreation land in or near Dane County. Since 1983, Natural Heritage Land Trust has completed nine land conservation projects in the Black Earth Creek valley, permanently protecting 928 acres through acquisition or conservation easements.

For more information about Natural Heritage Land Trust, please contact Jim Welsh, <u>jim@nhlt.org</u>, or Caleb Pourchot, <u>caleb@nhlt.org</u>, or call (608) 258-9797. The Land Trust Accreditation Commission, based in Saratoga Springs, N.Y., awards the accreditation seal to community institutions that meet national quality standards for protecting important natural places and working lands forever. The Commission is governed by a volunteer board of diverse land conservation and nonprofit management experts from around the country.

Natural Heritage Land Trust supporter Jay Loewi (L) and his dog hiked the new Wolf Run Trail along Black Earth Creek between Mazomanie and Wisconsin Heights School with landowner Fred Wolf (R) in May. <image>

Photo: Angie Banks

Growing Up on Black Earth Creek

Sara Shakleton

I grew up on Black Earth Creek on a farm just west of Mazomanie with my 12 brothers and sisters. As children, it set the boundaries of our world. We seldom ventured beyond sight of "the creek." My grandparents (both sides) and aunts and uncles lived along "the creek" too.

That's what we called it, "the creek". We never called it Black Earth Creek. Black Earth was that town down the road. This was our creek. It didn't need a name. It ran through our farm. And through Grandpa Wolf's farm southeast of Mazomanie, and next to our school yard, and Grandpa and Grandma Wood's back yard in town.

The creek ran behind our barn, edging the north side of the semicircular cow yard, close up to the hill that rises into our back 40. That hill of sand was important to us. It was where we anchored our diving platform, a 2 x 10 board about 9 feet long that jutted out over the only really deep hole in the creek on our farm. It was a great place to cool off and to dunk your smart-mouthed brother. Dad pastured the cows along the creek, both sides, a practice we know today to erode the creek banks and diminish the quality of the creek. Back in the 50s and 60s it was a common practice. We swam with the herd watering right near us, swishing tails and cow pies. No one worried about bacteria in the water or in our mouths.

Grandpa Wolf's farm was southeast of Mazomanie, extending upstream along the creek for about a mile, from the bridge on East Hudson Road to his farm house that sat on a ridge above the creek, his barn and out buildings on the creek plain below. The farm included the dam that created Lake Marion. This stretch of the creek provided a lane for the cows to meander to the pasture near the East Hudson Road bridge. It also provided a perfect playground for farm kids looking to hide out from hoeing grandpa's garden or making hay. One chore my brother Freddy and I had was to bring the cows in for the evening milking. We would dawdle our way up stream, splashing in the water, skipping stones, catching frogs, digging clay, collecting shells. We loved to count the bank swallows flitting in and out of their homes drilled into the high sand bank of the floodplain. Sometimes there were hundreds! When the cows found us, we would turn and head toward the barn, following the herd. With our feet cold from walking in the creek we squished the fresh dropped cow pies between our toes, watching the steam rise.

When I was small, two of dad's youngest sisters still lived with Grandpa Wolf. They were teenagers. My aunts loved to hang out down by the dam, about a quarter mile upstream from the farm buildings. The area around the dam was a low and level floodplain where the cows lollygagged if they didn't feel like making the long trek to the Hudson Road pasture. In the spring this meadow was purple with wood violets. It was a great place to picnic. I would sit on a blanket with my aunts, watching water spill over the dam in the shadow of the Mazo Bluff, listening to them gossip about their boyfriends.

After Grandpa died, dad took over his farm, and eventually Freddy, who raised his family there. When Freddy stopped milking, the lane and the pastures also ended. Without the herd to keep the creek side grassy, trees of all sorts, buckthorn, wild berry bushes, every kind of invasive plant grew up so thick along the creek that you could stand within 15 feet of it and not know it was there. Indeed, travelers driving on Highway 14, across the viaduct over the old cow lane, didn't know they were driving over a creek.

Grandpa and Grandma Wood's house was in town on Cramer Street, by the East Hudson Street bridge. Grandpa Wood, a railroad man, retired after a heart attack and made fishing flies. Old guys came from all over to buy them. He called them "pinkies." As a teenager, after grandma died I ordered his fly tying supplies for him from companies listed in the back of fishing magazines. We ordered thread and feathers, paint and #10 hooks. I wish I had one of those "pinkies" today.

Now I call "the creek", the Black Earth Creek. I have my memories. But now I understand that it is more than the boundaries of my childhood world. It's important as a recreation area, important as a watershed, important to the economy and quality of life of the area. It needs to be shared. My mom knew this.

About 2006, widowed and in poor health, Mom gave us an unequivocal order, "make that land along the creek a park so kids can fish without cutting down the fences." With lots of help from many others, we did just that. The old cow pasture and lane are now Wolf Run Conservancy and Trail, complete with a free flowing stream, restored wetlands, and a multipurpose recreation trail. No fences to cut, no utility poles overhead, no overgrowth of brush, the dam is gone. Travelers

along the highway can now see the stunning, meandering creek being enjoyed by walkers, bike riders, kayakers, and kids fishing; out enjoying "the creek," as I remember it.



Sara and her grandchildren along "the creek" -Michael Weston, Colin Weston, Rupert Shackleton, Kiera Weston

Lake Marion Construction Work Complete but Dry Weather Delays Refilling

Christpher Long, Becwa Board Member

The Village of Mazomanie completed the second phase of restoration work on Lake Marion this summer before extended dry weather forced a delay in refilling and restocking the 155-year-old former millpond.

In July, Rochon Construction regraded and resloped the 1900-foot County Highway KP bank as part of the next set of improvements the Village is making to reestablish the 16-acre constructed pond as a family recreational fishery. Other habitat work included installation of shoreline wood structures and gravel spawning areas plus a winter aeration system in the north end of the lake. Community volunteers joined Quercus Land Stewardship staff in seeding the newly created buffer strip along the KP bank in native plants and grasses.

The Wisconsin Department of Natural Resources is helping fund the 2015 restoration project under the Village's WDNR-approved management plan for the lake.

With construction work completed in mid-July, the Village flipped the switch on the new lake pump funded in part by Dane County Parks and began refilling the lake, drained last fall to prepare for the first phase of restoration work this past winter. At the rate of 800 gallons per minute, bringing Lake Marion back to its historic normal water level not seen since 2009 had been expected to take several weeks, with introduction of aquatic plants and restocking of fish to follow in August and September.

Then Mother Nature intervened and forced a change of plan. Drought conditions developed, prompting the Village to halt pumping in order to conserve water in the deep aquifer that supplies both the lake well and the municipal wells that serve Village residents. After the pumping was halted, the dry lakebed and parched basin of the man-made lake quickly absorbed all standing water. The good news is that the dry lakebed made it possible for the Village to cut down the heavy growth of annual weeds that had invaded the lakebed and were competing with the lake for water because of the drought.

With approval from WisDNR, aquatic planting and restocking the lake with largemouth bass, panfish, and channel catfish is now planned for spring 2016.

Before pumping can resume, an extended period of wet weather will be needed to replenish the aquifer and also help naturally seal drought-caused leaks in the lakebed and basin. In addition to relying on natural remedies, the Village will perform leakage testing to determine whether a significant amount of water is being lost to any unanticipated cause and make any necessary repairs. The Village is consulting with WisDNR, the University of Wisconsin Water Resources Management (UW-Madison/Nelson Institute WRM), and Cason & Associates in this effort.





Celebrating the Official Opening of Wolf Run Trail June 6, 2015 Fred Wolf, Dan Wisniewski, Sara Shakleton, Steve Born, Scott Stokes, Tom Krauskopf, Lauren Brown

Project updates on Facebook at www.facebook.com/lakemarionproject. Please contact me if you have questions or need additional information: Christopher Long, Lake Marion Project Manager, chris@christopherlong.com, (608) 658-7901.

Photos: LV Brown Studio LLC

Trout Like Cold Water...But Not That Cold

Debra Weitzel, Becwa Board Member

What's causing the trout declines in Black Earth Creek? Anglers have been observing less trout for the last two years and wonder, "What's up?" To that end, interested folks packed into a presentation at the Rosemary Garfoot Library by Scot Stewart and Kurt Welke to see what the data could tell them.

Stewart and Welke are two fisheries experts from the Department of Natural Resources and have been collecting mark and recapture data from BEC and surrounding waterways for years. Stewart said that surveys at BEC go back to 1954. Besides the fish population estimates, other important data such as temperature, dissolved oxygen and flow rates are collected by the DNR as well.

Scot Stewart talks with attendee



Fish kills have occurred in the past due to sewage treatment spills and manure runoff plus a drought in the late 80s, with all accounting for declining trout populations. Habitat restoration certainly improves numbers and at times stocking is needed to bolster populations. At other times such as 2008, restocking did not occur and in the area around Highway P, there was good recovery by natural means.

So what's the current cause of the decline? Data is suggesting that the recent drought followed by two extremely cold winters are stresses that have taken their toll not only on BEC but surrounding creeks as well. These prevailing, stressful conditions were greatly pronounced in the more vulnerable life stages: developing eggs in the substrate and young fish who are physiologically less able to respond to extended stress. It appears that trout cannot tolerate near freezing temperatures and the declines were seen along the entire stream. In areas with better habitat, less reductions were seen. Population declines were regional not just in Black Earth Creek. And when eggs fail to hatch, or young fish fail to survive, anglers catch less fish.

However, there is some light at the end of the tunnel. Kurt Welke has some good news to update anglers, "The 2015 surveys in Zander park show positive increases in fish numbers, especially in 2015 young of year ...there's some encouraging back filling occurring in the ranks of the trout!"



Kurt Welke answers questions

While this is good news, Stewart is suggesting that a management plan is needed and would like help from citizens with this task. Together we can make a difference especially in the wake of State Budget cuts to the DNR and the loss of 50% of the scientist positions that collect data for management decisions. The importance of science based decision making cannot be overstated. BEWCA does not support leaving decisions to politicians. Sixty one years of data collection on BEC can't be wrong-minded.



A full house at Cross Plains Library

Local Pollinators Imperiled

Dave Lucey, BECWA Board Member

In the Black Earth Creek Watershed, and nationwide, the creatures that we rely on to pollinate our food crops are in serious trouble. These pollinators, including bees, butterflies, moths, bats, beetles and birds, are responsible for fertilizing many of the fruits and vegetables that are a source of income for Wisconsin farmers, such as strawberries, apples, cranberries, tomatoes, raspberries, and blueberries. Other important food products that rely on pollinators include honey, oranges, and almonds. Experts have estimated that over 2/3 of our food crops rely on the actions of these amazing insects and vertebrates. Nationwide, the numbers of these pollinators have plummeted. Of particular concern is the monarch butterfly, which has seen its numbers drop by over 80% in the last 20 years, causing some to call for it to be put on the list of endangered species.

The causes of the pollinator die-off are varied. The loss of habitat is the main reason the monarch is struggling. With the demand for ethanol as fuel, 27 million acres, an area the size of the state of Indiana, has been converted from CRP land and other uses, to corn and soybean production. Another cause is the wide use of genetically modified seeds, which allow farmers from Texas to Wisconsin to spray their crops with Roundup, and in the process, killing the milkweed plant, the only plant that a monarch will lay its eggs on and the only plant a monarch caterpillar can eat. Over 60% of the milkweed plants of the Upper Midwest have been lost in the last 15 years, prompting a drive to replace the plants that have been lost recently. Some have estimated that over one million acres of milkweed need to be planted yearly nationwide to keep pace with losses.

Another cause of the pollinator losses, especially in the case of honey bees, is the use of neonicotinoids, poisons that are put into crop seeds, or sprayed on plants, that make the plant toxic for insects that try to feed on it or on its pollen. There is a drive to restrict their use in this country, as the European countries have done.

Locally, efforts are going forward to increase the habitat for pollinators. At Festge Park, several acres of prime pollinator habitat have been created in what was once a cornfield along Hwy 14. A local beekeeper has placed 8 hives in this field to take advantage of the cornucopia of pollen producers. In a career spanning six years, he has seen a significant decline in his bees



ability to find pollen. In an area where the honey bees used to be able to fill 40 boxes, he now places 24. There are plans for several more acres of prairie to be planted this fall and next spring at Festge Park and at Salmo Pond, with particular emphasis on varieties of milkweed to help the monarchs in their struggle to find that host plant. Along with large acreages of prairie at Indian Lake Park and at the Swamplovers preserve, and efforts by private landowners in the watershed, perhaps we can have an impact on the survival of these valuable pollinators.

For more information on how you can help, visit the Arboretum's website at www.uwarboretum.org

Photo above is a monarch on a stiff goldenrod plant at Festge Park.



Black Earth Creek Watershed Association

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

How Much Do You Know About BECW?

Answers to Quiz from Page 2

1. **True:** Upwelling of groundwater in Black Earth Creek prevents the stream water from getting too warm or too cold, and makes the stream an excellent habitat for trout and invertebrates.

2. False: Stream organisms will recover after discharge of harmful pollutants is curtailed because they are able to recolonize by dispersal from upstream, downstream or terrestrial stages of aquatic insects.

3. True: If stream channels are irreversibly modified and riparian zones destroyed, the quality of stream habitat can be permanently degraded.

4. **False:** After just a few months allowed for recolonization, the invertebrate fauna of the reconstructed section of BEC were more healthy than the fauna in the sections that remained straightened. However, sections of the stream that were never straightened had the healthiest invertebrate communities.

5. **True:** Although heavy rains caused the flows of BEC to get very high, the newly reconnected floodplain prevented permanent damage to the stream or adjacent habitats.

6. **False:** Because Black Earth Creek is a spring-fed stream, it never freezes to the bottom, thereby protecting the trout from being harmed by extremely cold air temperatures. Trout are cold-water adapted and prefer cooler water temperatures, such as those of spring-fed streams like BEC.

7. **True:** It took a year for BEC to be recolonized by macrophytes, which was longer than it took for the invertebrates and trout populations to recover.

8. False: The NZMS has only been collected in abundance where BEC crosses South Valley Road. It has also been collected near the Village of Cross Plains Sewage Treatment Plant and a few specimens were found near Mazomanie. However, it has not shown widespread dispersal within BEC.

9. True: BEC supports an abundant invertebrate community that is needed to support a healthy trout fishery.

10. **False:** Given the abundant input of cool groundwater from upwelling zones, BEC is a hydrologically "gaining stream" that is not vulnerable to drying, even during extreme droughts. Therefore, it provides a reliable habitat for trout populations.