Rock County Success from the Field: Field Day Showcases Precision Agriculture and Water Quality

Article provided by the NRCS Janesville Service Center

Background
Doug, Dan, and Dave Rebout are the three brothers who make up Roger Rebout and Sons Farm, a 4,000 acre corn and soybean operation just outside of Janesville. They also have a small dairy and raise around 200 Holstein steers annually on a multifaceted farm they inherited from their father and now share with their sons.

Highlights
In 2014, the Rebouts partnered with UW Discovery Farms to become the first operation in Discovery Farms’ southeast core cluster. As part of this collaboration, NRCS provided financial assistance through EQIP to install edge-of-field monitoring in paired watersheds in two fields on the Rebout’s farm. The brothers were interested in participating in this research effort because they believed the cropping system they adopted was doing a pretty good job of limiting soil erosion and nutrient losses to surface water.

The Rebouts hosted a field day for state and county elected officials in conjunction with Insight FS and the Wisconsin Farm Bureau Federation as part of the Sustainable 4RWI collaborative project. The event highlighted how farmers and crop nutrient retailers can partner to improve management of nutrients by choosing the right nutrient source, applying at the right rate, at the right time, and in the right place.

Staff from Insight FS presented information on the precision agriculture and nutrient management techniques employed on the Rebout farms while Discovery Farms talked about water quality monitoring and nitrogen use efficiency. The NRCS rainfall simulator was on display and Dave Gundlach, District Conservationist, discussed the soil health impacts of different crop management systems.

Future Plans
The Rebouts have one more growing season of benchmark data collection left before one of the paired watersheds in the edge-of-field study will have a cereal rye cover crop added to the rotation following fall harvest. This treatment will be done for three years and the results of the cover crop addition will be compared against the control watershed that doesn’t receive cover crops. They are interested to see if the effects of the cover crop warrant wider adoption across more of their acres. They also plan to continue taking an active role in promoting sustainable cropping practices to the local community in the years to come.

Two Conservation Practices Explained
Displays at the event promoted two key agricultural practices that can protect soil health.

Spring Strip Tillage is a soil conservation method farmers’ use for better land management. Nutrient placement is tied to strip-tillage and allows for optimum fertilizer placement for plant uptake.

In a strip-till system, seeds are planted into narrow strips of tilled soil that are created prior to planting. Strips are prepared in the spring and anhydrous ammonia is used as a source of nitrogen. This nitrogen management strategy helps place the fertilizer in the right place at the right time it’s needed.

Nitrogen, phosphorus and potassium fertilizers are applied in the row area at the time of strip preparation, which can increase nutrient availability to seeding plants and decrease the chance of nutrient loss.

Topdressing is the broadcasting of fertilizers, particularly nitrogen fertilizers, with the objective of supplying nitrogen in a readily available form to growing plants. Split applying nutrients allows farmers to make decisions based on the crop’s potential that year and the right rate needed for that crop at the right timing.
Welcome to our Fall Newsletter – hot off the presses! With everything moving around digitally these days, it’s still nice to get something on paper and take a break from the glowing screens.

I’d like to start by introducing myself: I’m an Associate Professor in the Geography, Geology, and Environmental Science Department at the University of Wisconsin–Whitewater and honored to be chosen as the new President of the Rock River Coalition Board (as of May of this year). I’ve been a member of the board since 2013 and a volunteer stream monitor since 2012 on both Bluff and Whitewater Creeks. Additionally, I’m an avid kayaker and sailor and spend much of my time on or near water in Wisconsin. Needless to say, the health and future of our lakes and streams is extremely important to me. My goals in the coming year are to:

1) continue the fine tradition of leadership of my predecessors – that’s a significant goal in itself,
2) improve our information sharing and the visualization of the water quality data we’ve been collecting for years, and
3) to help expand the organization through increased fundraising and outreach, because our tasks and mission grow in importance day-by-day.

Kind regards,

Eric Compas
RRC President

Why is Snapshot Monitoring Important?
Continued from page 8

Simply put, volunteers are our early detectors in the fight against AIS. From paddlers to anglers and all water enthusiasts in between - they have been gathering data for years, just by doing what they love. Now, by providing a venue, training, and a bit of fun we can help empower the community to become stewards of their waters. They in turn, provide invaluable information to the WI DNR, landowners, local governments and other entities working to protect them.

In 2018, 21 different events were hosted, monitoring upwards of 154 sites, with the help of 172 volunteers! While we wait on verification, our teams have potentially helped identify 10 populations of invasive species previously undocumented in the sampled water bodies.

Back at our Cross Plains event, my group returned to find everyone enthusiastically sharing their finds and helping each other identify a plethora of plants and critters liberated from the creek. Even better - many were already asking about next year and we need all hands on deck!

It’s not too soon to mark your calendars for Snapshot Day 2019, taking place on Saturday, August 17th.

If you are interested in joining us or have any other question about our aquatic invasive species monitoring programs, please contact me: ndutack@wisconsirivers.org or 608-257-2424 x 111.

We hope to see you on the water!

Welcome New Board Member - Monty Baker

The RRC Board is pleased to welcome Montgomery (Monty) Baker to the board. After part-time undergraduate work with the Environmental Task Force Laboratory at UW-Stevens Point and a summer in college working in Wyoming for the Bureau of Land Management as Hydrologist, Monty was employed by the Madison Metropolitan Sewerage District for thirty-six years as a Wastewater Chemist/Microbiologist.

In addition to his ongoing involvement with the RRC and WAV, Monty participated in the Madison schools’ Adult Role Models in Science (ARMS) program as a classroom presenter. Water quality has been an ongoing interest of mine because it is vital to all life on our planet. He also enjoys fly fishing and canoeing.

Montgomery has a Bachelor of Science degree from UW-Stevens Point with an emphasis on Water Resources (Chemistry Option) and Resource Management as well as a Certificate in Turf and Landscape from Blackhawk Technical College. Originally from Mellen, Wisconsin, Montgomery lives in Rock County and has a sampling site on Spring Creek outside of Cooksville.
2018 Monitoring Season Update
By Nancy Sheehan

Spring Training Season A Success
We had a great spring training season. Our partners this year were the Waunakee Village Center as well as the Rock County Parks and Land Conservation Departments.

Sixteen new volunteers joined our program this year.

We are also happy to report that Waunakee Village Center staff revamped their stream monitoring program to offer monthly monitoring events open to the public.

Increasing Baseline Monitoring and Nutrient Sampling
179 volunteers are monitoring 118 stream stations across the Rock River Basin.

In addition to collecting baseline water quality data, volunteers are collecting water samples from 57 stations. These samples are analyzed for nutrients such as total phosphorus and nitrogen.

The Madison Metropolitan Sewerage District (MMSD) continues to be a great partner, analyzing samples from 37 of these 57 stations.

This year, Walworth County Metropolitan Sewerage District (WalCoMet) in Delavan partnered with RRC to increase nutrient analysis at several sites in Walworth County.

The WDNR WAV program also funded phosphorus sampling at 11 volunteer stream monitoring stations.

We are thankful to all our volunteers currently we have 52 monitors in Dane County, 19 in Jefferson County, 14 in Walworth County, 14 in Waukesha County, 11 in Rock County, 5 in Dodge County and 3 in Fond du Lac County.

Water Warriors
The Water Warriors continue to collect samples through a separate program in Fond Du Lac County and in partnership with UW Oshkosh.

This little green frog is the Water Warriors’ mascot.

Laura DeGolier coordinates this team and is joined by Paul and Becky Wagner and Joanne Michaels who monitor several stations including three stations in the Rock River headwaters system.

Graduate Student Studies Use of Citizen Based Water Quality Data
The Rock River Coalition is committed to improving the use of citizen-collected water quality data. Toward this end, Ms. Semlow, University of North Texas-MS of Public Health/MS Applied Anthropology Candidate, is conducting a qualitative study with us this summer.

Her study will identify how citizen-collected water quality data is currently being used. Ms. Semlow will also identify key barriers that exist at different natural resource decision-making levels. Her geographic focus is the Yahara River watershed, but her study will transcend this region and help direct the future of our stream monitoring program across the Rock River Basin.

Findings from this study will be shared during our biennial conference in November.

REGISTRATION IS NOW OPEN!
at https://rockrivercoalition.org/confluence-2018
Don’t miss our biennial conference. Meet fellow volunteer stream and lake monitors. Hear and discuss challenging issues. Enjoy a meal together.

This year, we will hold our conference at UW Whitewater. Take a moment to review the full agenda on our website. Various experts will share insights and stories on such themes as:

- Making the Connection Between Soil Health and Healthy Water
- Fish Habitat in Lakes and Streams
- Your Water Quality State Standards
- WDNR Targeted Watershed Assessment for Turtle Creek
- Actually, Restorable Wetlands
- New Data Visualizations
- Your Data and Your Actions
...and much more.

We also have a number of presenters and exhibitors who will be available to discuss such themes as:

- How to Protect Yourself Against Lyme Disease
- Learning About Stream Monitoring with Youth
- Stormwater Management
...and much more. With your ticket, you will also be served a great meal of vegetarian lasagna, fresh mixed green salad and cookies. Tea and coffee will be available.

Come join volunteer stream and lake monitors, Rock River Coalition members and other partners and supporters of clean and healthy water.

Together we are making a difference!
On a beautiful evening in late June, a group of volunteers met at Rome Pond equipped with a fleet of duck boats and waders, but it wasn’t for a leisurely fishing trip or a pleasant float on the pond. These volunteers were on a mission to control an invasive species called Purple Loosestrife that has overrun many of our wetland ecosystems. Like other invasive species, it outcompetes native species for resources such as sunlight, water, and space. Although it is likely that Purple Loosestrife is here to stay, there is an effective and fun way to keep it from dominating—and you can help!

The Wisconsin Department of Natural Resources (WDNR) permits and encourages Purple Loosestrife biocontrol; the control of an invasive by introduction of a natural predator. In this case, the natural predators are two “Cella” beetle species (Galerucella calmariensis & G. pusilla) that feed on its leaves and shoots.

Research has shown that the beetles decrease the health, size, and seed output of the plants, which allows native plants to outcompete the smaller, less aggressive loosestrife plants.

In the Rock River watershed, Purple Loosestrife exists throughout including the Rome Pond Wildlife Area. Historically, this area has been managed for exceptional waterfowl hunting. For the past few years, WDNR has partnered with volunteers from the Waukesha Chapter Wisconsin Waterfowl Association (WWA) to keep the Rome Pond population under control and this year was no exception. Mike Alaimo (Waukesha Chapter Chair and WWA's Adopt-A-Wildlife Area program’s key volunteer) made frequent visits to Rome Pond this spring to check the progression of the spring thaw.

At last the temperatures warmed and the ice melted. We dug, potted, and netted 25 plants that would soon be home to hundreds of Cella beetles. The potted plants were kept in kiddie pools of water since these are wetland plants that thrive in a wet soil environment. This year Ken Rheingans, a local resident, volunteered to host the plants at his property near the pond. Ken and his family did an excellent job of keeping the plants well-watered and in plenty of sunshine.

As soon as the plants grew tall enough (more than 3 ft.) we stocked each netted plant with about 10 Cella beetles provided to us by Brock Woods, the statewide Purple Loosestrife Program Coordinator. Over the next few weeks the beetles feasted away on the potted Purple Loosestrife and ultimately created the next generation of beetles. The plants began to look sickly, but that was a good sign. It meant that the beetles were happily eating and most importantly - laying eggs.

This brings us to that beautiful evening in late June. Volunteers distributed the plants among the numerous duck boats and strategized where to place the beetles in the pond. After a few encounters with hidden submerged logs, we managed to place and mark the pots in dense areas of Purple Loosestrife with the hopes of having the beetles affect as many plants as possible. This fall, volunteers will return to the pond to collect the pots and markers.

It is likely that Purple Loosestrife will never be eradicated in Wisconsin, but the Biocontrol Program is an efficient and fun way to keep this plant in check without having to use herbicide. If you are interested in raising beetles and releasing them in an infested area, visit https://dnr.wi.gov/topic/Invasives/loosestrife.html for more information.
Calling all Fish – New Habitat on Rock Lake

Rock Lake is a popular destination for many fishermen – both in the summer and during the ice cover. The fishery is in good condition because of the variety of habitat in Rock Lake such as the bulrush bed in Korth Bay; the variety of native aquatic plants mostly located on the west and southern shores; and rocks that are found mostly on the eastern shore. However, there is a lack of one type of habitat in the lake – wood. In order to change this situation, trees were placed at 2 locations in the lake at the end of February. These bundles of trees are called fish sticks.

Fish sticks are recommended where the density of trees in a lake is less than 200 trees per mile of shoreline. A 2016 wood survey on Rock Lake found 55 trees in the water amounting to 7.5 trees per mile. In order to improve this number, the Jefferson County Land and Water Conservation Department (LWCD) obtained a Department of Natural Resources (DNR) Healthy Lakes grant to install fish sticks in Rock Lake adjacent to Tyranena Park in the City of Lake Mills. The Rock Lake Improvement Association also provided funds and project coordination.

DNR fish biologists and the LWCD Water Resources Management Specialist, Patricia Cicero, worked together to choose suitable locations on Rock Lake for the fish sticks. Tyranena Park was chosen because of the lower wave energy at the site, and the fact that the fish habitat could definitely be improved at this location.

The City of Lake Mills approved the installation of the fish sticks at Tyranena Park, on the northeast side of Rock Lake, and supplied the trees. The ash trees are ones that the City was planning to take down anyway. The contractor (Forest Landscaping & Construction, Inc.) removed the trees and hauled them to Tyranena Park. They were placed on the ice and positioned at 2 different locations. Each location has 3 trees installed and anchored in place. When the ice melted, the trees dropped into the water so that the majority of the trees are underwater and a small portion is above water.

Cicero stated that “the fish and wildlife of Rock Lake will benefit greatly from the partnership between the lake association, the City of Lake Mills, the County, and the DNR.” Almost all the fish species in the lake use woody habitat for a portion of their life cycle. Depending on the species, the habitat provides areas for spawning, shelter, and feeding areas. The fish sticks can also benefit animals such as birds and turtles that use the parts of the trees that are above the water by providing nesting and sunning areas.

The Healthy Lakes grant through the DNR is available to assist lake shore owners with the installation a variety of projects. Eligible projects include fish sticks, a 350 ft² shoreland garden, rain garden, water diversion, and rock infiltration trench. For more information on this grant opportunity, please visit healthylakeswi.com.

In order to further improve the wood habitat in lakes, Cicero recommends that homeowners leave the trees that naturally fall into the water in place if possible, and plant native shrubs and trees that will become fish habitat in the distant future.

For more tips on improving fish habitat and to learn more about the fish sticks project on Rock Lake, contact Patricia Cicero at either patriciac@jeffersoncountywi.gov or 920-674-7121.

Photos clockwise from top left:
Lee Gatzke cables the trees together.
The tree is transported over the ice of Rock Lake.
Volunteers toast the installation of the fish sticks with hot chocolate! From left: Lee Gatzke, Stanley Smoniewski, Jim Kerler, Wes Dawson, Patricia Cicero
One fish stick with 3 trees is waiting for the spring thaw.
The installed fish stick is now providing habitat to fish and other animals.
Impact of Torrential Rains on Our Streams

By Nancy Sheehan, Program Coordinator, Volunteer Stream Monitoring with contributions from the following volunteer stream monitors Ron French, Lloyd Eagan, Michana Bachman, John Booske

On the evening of August 21st a storm slammed into portions of central Wisconsin. In some cities like Verona and Middleton about 11 inches of rain fell with the tragic outcome of one fatality. There were numerous reports of the Yahara Chain of Lakes overflowing their banks.

No wake ordinances were put into place. On August 27th, the City of Madison reported distributing 160,000 sandbags to 13 sites providing sand and sandbags for the public to fill. For several days, the City of Madison volunteers, and the National Guard was producing 2,000 filled sandbags per hour for public use.

Our RRC volunteer stream monitors were also out to help and document the impact of this intense rain event on our local streams.

On August 24th, Lloyd Eagan reported that the bridge from which he monitors Pheasant Branch Creek was closed. She also reports that Pheasant Branch Conservancy is closed until it is deemed safe for the public to access. The photos below speak volumes to the devastation.

Likewise, volunteer Michana Buchman could not enter her station on Pheasant Branch. Conservancy pathways are buried under sand and silt and the County Highway M bridge has become severely eroded.

Nowhere was the flooding more clearly documented than by volunteer Ronald French who monitors Swan Creek on Lalor Road in Fitchburg. On August 20, 2018, Ron met with graduate students from the University of Wisconsin, Water Resources Management, Nelson Institute for Environmental Studies, to discuss stream monitoring efforts on Swan Creek. During their early morning meeting, Ron and the WRM graduate students observed a calm creek with a normal-to-low flow.

On August 21st, Ron visited Swan Creek again. In just 24 hours, Swan Creek was overflowing its banks. The gage installed by the UW-Madison WRM graduate students recorded the extreme change in water velocity.

These photos below dramatically depict the story of the graphs above.

WHAT DOES IT MEAN?

STAFF GAGE AND CFS DEFINED
FROM USGS WATER SCIENCE SCHOOL

"River stage is an important concept when analyzing how much water is moving in a stream at any given moment. Stage is the water level above some arbitrary point, usually with the zero height being near the river bed, in the river and is commonly measured in feet. For example, on a normal day when no rain has fallen for a while, a river might have a stage of 2 feet (baseflow conditions). If a big storm hits, the river stage could rise to 15 or 20 feet, sometimes very quickly. This is important because, from past records, we might know that when the stage hits 21 feet, the water will start flowing over its banks."

CFS is: "A rate of the flow, in streams and rivers, for example. It is equal to a volume of water one foot high and one foot wide flowing a distance of one foot in one second. One “cfs” is equal to 7.48 gallons of water flowing each second. As an example, if your car’s gas tank is 2 feet by 1 foot by 1 foot (2 cubic feet), then gas flowing at a rate of 1 cubic foot/second would fill the tank in two seconds.”
Harmful Blue Green Algae from Lake Mendota Migrates up Willow Creek

By Nancy Sheehan, Program Coordinator, Volunteer Stream Monitoring with contributions from Karen Knetter, RRC volunteer stream monitor

In popular articles about lake water quality, streams and rivers are often referred to as “convey belts” that “discharge” pollution, including too much water and too many nutrients, into lakes causing water levels to rise, and increased algal blooms. This year, Karen Knetter, RRC volunteer stream monitor, documented the reverse -- how lakes can actually “discharge” into streams creating adverse impacts.

Like many other volunteers working across the Rock River Basin, Ms. Knetter assesses stream health on a monthly basis. She measures dissolved oxygen concentrations and stream temperature using a YSI meter. She measures clarity using a transparency tube. With a grant from the WDNR Water Action Volunteers program, Ms. Knetter also collects monthly water samples that are analyzed for phosphorus by the State Lab of Hygiene. Since 2013, she has been a stalwart voice for Willow Creek, located on the campus of UW-Madison. After five years of monitoring, Ms. Knetter has become an expert citizen scientist who knows intimately about changing water quality at her station. Because of her expertise and familiarity with Willow Creek, she knew something was wrong during her monthly June 2018 monitoring session. Willow Creek is a slow-moving low gradient waterway which absorbs the stormwater burden for a portion of University Avenue near Linden Drive—on the near west side of Madison. As Ms. Knetter can attest to, dissolved oxygen levels have never been great with an accumulative median value barely above the target for warm water sports fisheries of 5 mg/L. But she witnessed something odd this past June during her visit to Willow Creek.

The morning of June 6th, Karen obtained a DO reading of 0.06 mg/L. She quickly sent a text message to Nancy Sheehan, Program Coordinator with the Rock River Coalition. Ms. Knetter agreed to visit her station again the next day. Dissolved oxygen concentrations were still very low—0.09 mg/L. Two days later, there was really no change. Then, Ms. Knetter witnessed a scene she will never forget. The high nutrient content of both lake and stream waters as well as warmer temperatures and heavy rains contributed to a blue-green algae bloom on Lake Mendota. In a matter of hours, Karen saw the green waters of Willow Creek turn bright aqua blue.

Karen caught a video of the waters infected with the potentially toxic bloom as it moved upstream, breeching a stormwater weir recently built by the City of Madison. (Go to the RRC website to see the video.) According to reporting protocols, Ms. Knetter did everything correctly. She notified the RRC program coordinator who, in turn, notified the state-wide WAV coordinators, the WDNR regional stream biologist, and City of Madison staff. By the time the bloom reached Willow Creek, there was not much anyone could do but watch and wait.

Many news outlets provide vivid testimonies that occurrences of algal blooms, including harmful blue-green algal blooms, are increasing across the state. From the harmful blue green algal bloom that spanned 50 miles along the shores of Lake Superior to the algal bloom that crept up Willow Creek, we are witnessing the unprecedented impact of a warming climate. Needless to say, Ms. Knetter no longer wades into Willow Creek as she once did in 2013 (shown here) without her chest-high waders.

However, Ms. Knetter is not to be deterred from her commitment to water quality. She continues to collect monthly samples and to be a “voice” for Willow Creek.

More On Stream Water Quality Data

We have launched our Tableau service project with 18 new “tech” volunteers. These volunteers hail from different businesses in Madison and are part of the Madison Tableau User Group. They will help improve data preparation procedures; revise and improve current data visualizations; and create new content. Ms. Jen Shepherd, a member of the Madison Tableau Use Group, has agreed to be the project manager for this effort. Ms. Shepherd is committed to the idea that data can be used for the public good. Findings from this project will be shared during the biennial conference to be held in November.

Volunteer stream monitors, Jeffrey Wilson and Michael Sweet, continue to work with me to revise and improve our Rock River Basin Report Card process published using ESRI ArcGIS.
Maintaining a Paddlers Delight…

By Jim Post, Friends of Badfish Creek

Friends of Badfish Creek Watershed (FBCW) have been working to protect and promote the creek as a recreational resource since 2007. Recently the friends completed a couple of projects that greatly enhanced the Badfish Creek paddling experience. Late in 2017, creek access was improved at Old Stage Road (see RRC Winter 2018 article). In July of this year, members of the group spent some time clearing debris and opening a path through deadfalls upstream of the new access. Launching at Old Stone Road adds a 2.5 mile section that flows through the WI DNR owned Badfish Creek 2.5 mile section that flows through deadfalls upstream of the new access. In the mid 1950s, due to poor water quality, the Madison Metropolitan Sewerage District (MMSD) was directed by state statute to stop releasing effluent into Nine Springs Creek and Lake Waubesa. The district began discharging effluent from the nine springs waste water treatment plant into Badfish Creek via a 5 mile long underground pipeline that connects to a 5 mile long open channel ditch just above Highway B (see diagram). The ditch joins the Oregon branch of Badfish Creek just north of Highway 138. The Village of Oregon waste water treatment plant also discharges effluent into the Oregon Branch of Badfish Creek. The effluent is recycled water that meets or exceeds water quality standards in accordance with permits issued by the WI DNR. Effluent adds approximately 65 cfs to the base flow of Badfish Creek and keeps it ice free year round. It’s a win - win for paddling enthusiasts in southern Wisconsin.

Prior to the addition of effluent in 1959, the Madison Metropolitan Sewerage District completed a “channel improvement” project down to Leedle Mill Road in Rock County. This section of creek no longer twists and turns with natural meanders, still it traditionally offers a moving water paddling challenge by way of deadfalls, low branches and boulders. FBCW hopes to improve this section of the creek in 2019. A recent 2 hour paddle, from Sunrise Road to Old Stone Road, required one deadfall portage, several bouts of deadfall wrangling, numerous close encounters with deer, frogs, ducks, great blue herons, and turkey, as well as, occasional moments of quiet isolation.

After Old Stone Road, the stretch through the wildlife area and down to Leedle Mill Road bridge offers a secluded yet welcoming float that could help a beginning moving water paddler gain confidence and develop obstacle avoidance skills. Beyond Leedle Mill Road, the creek regains it’s natural meander and floodplain which provides a wonderful paddling experience for the intermediate paddler. Depending on water levels several riffle areas provide an opportunity for boat handling skill testing and improvement. The riffles and boulders between Highway 59 and Riley Road have surprised many unwary paddlers over the years. The USGS and MMSD maintain a gauging station upstream of the Highway 59 bridge and it serves as a nice marker for the popular take out location just around the bend at North Casey Road. Look for a rope secured ladder creek left upstream of the bridge.

After North Casey Road the creek meanders for another 181/4 miles until returning to ditched form 1/4 mile from the Yahara River. There is usually at least 1 portage required in this section. Once on the Yahara, it’s about 1/2 mile to the Highway 59 bridge and another 4.5 miles down to Murwin Park in Fulton.

Badfish Creek offers a variety of paddling opportunities. Always check for safe water levels (< 170 cfs) on the Badfish Hwy 59 USGS gauge. From simple floats to intermediate riffles there’s something for everyone on this little gem of a stream. The Friends of Badfish Creek Watershed plan to continue maintenance activities and encourage you to report any blockages you encounter on our Facebook page.

Happy Paddling!

Additional Info:
https://www.wisconsinrivertrips.com/segments/badfish-creek
https://waterdata.usgs.gov/nwis/uv?site_no=05430150
https://www.facebook.com/BadfishCreekWatershed/

Time to Renew

The Rock River Coalition membership is by calendar year, so this November the board will be sending membership renewals out. Show your thanks for this bonus issue of the newsletter (12 full pages instead of the normal 8) and increase the value of your donation by going to the website today, or by mailing in the membership form on page 11 in this newsletter and renewing today.

You can also sign up for an emailed newsletter by sending a request to info@rockrivercoalition.org.
Birding By Canoe in the GHA

The clouds had been building all day. We’d had a good morning canoeing: the weather had been perfect, we added 29 species of birds to this block in the Wis. Breeding Bird Atlas (WBBA) with only 6 previously tallied species. We were headed back downstream to our Prince’s Point put in/take out landing. But something didn’t look right, something was wrong. We were lost in Jefferson County. Lost on the Scuppernong!

The WBBA Breeding Bird Atlas is a five year project trying to record all the bird species that are breeding in each county, which has been divided into 3 mile square blocks. Our GHA-Atlas team, Bob and Sue Volenec and Karen Etter Hale, had already completed 9 paddles for the year, totaling more than 60 miles of the Rock and Crawfish rivers in Jefferson and southern Dodge counties, adding birds in 20 Atlas blocks. Ultimately, this year, we canoed 79 miles (71 unique) and contributed data for 25 blocks. In all those miles, besides two group paddles, we saw just two kayakers and one fisherman. Alone on the water, slipping past mostly wooded shores, was like being in a different part of Wisconsin. We planned our paddles to focus on identifying birds, but enjoyed viewing adult deer, fawns, and a raccoon family sneaking to the edge of the rivers to drink. A large snapping turtle and numerous painted turtles lazily basked on snags. We were often able to slowly paddle or drift by without disturbing them.

All of us recently retired and live in Lake Mills, Jefferson County. Karen is the veteran member of our team, having birded her whole life and worked and volunteered on behalf of birds almost as long. She thought it would be immensely valuable to canoe as much water as possible in order to Atlas birds hard to find any other way, birds such as Black Terns, Least Bitterns, Sora and Virginia Rails, and Prothonotary Warblers.

Bob and Sue have always been observers of nature, but became more serious birders once they retired from farming in 2015. They are very active citizen scientists. Trained by the Rock River Coalition, they have been monitoring two streams and a lake in Jefferson County. Acoustically monitoring bats puts them out on the Rock and Crawfish Rivers, as well as, Rock Lake at night. The Glacial Heritage Area (GHA) water trails map of put in/take out sites has been invaluable in planning our routes for bats and birds.

In early June of this year, after canoeing nearly 11 miles of the Rock River from Watertown to County B with the Mad City Paddlers and finding 54 species of birds, including 17 Prothonotary Warblers and a Least Bittern, we were hooked. Paddling has been the best way to find some of our favorite water loving birds (we each have many): Green and Great Blue Herons (Sue), Belted Kingfishers and Yellow-billed Cuckoos (Bob), and Black Terns and Spotted Sandpipers (Karen). We’ve also been thrilled to see Bald Eagles on nine of our eleven routes, a true success story. Bridges often harbor nesting Barn and Cliff Swallows in large numbers, Eastern Phoebes (although not this year, due to the severe weather in April), and the elusive Rock Pigeon.

We agree that our best find was a surprise; not just one family of Yellow-headed Blackbirds, but a colony of at least four families, on a large marsh north of the Scuppernong River on the east end of Prince’s Point State Wildlife Area. We saw Black Terns there, also, but it was too late in the season to find nests.

Using our GHA map, we were able to plan our vehicle drops for take out, our put in locations, as well as, paddle mileage and parking availability. This allowed for easy maneuvering on the day of the paddle and another adventure.

One day, with no rain in the forecast, a storm came up, pinning us under the Hwy 26 bridge for more than an hour. Another time, Bob had to get out to ease us over the rocks choking the Upper Crawfish. And then there was the maze of ditches that drained the wetlands surrounding the Scuppernong River for muck farming, and we were on one of them, but which one?

Eventually, we worked our way out, but our new route took us over some downed trees, through a low-ceilinged 50’ culvert and thick, tangled woods.

Who knew we could get lost in our own county?

Rock River Stormwater Group
Hosts River Clean-Ups

On September 8, 2018, Protect Wisconsin Waterways coordinated river and other waterway clean-ups across five Rock River Stormwater Group communities.

Over 130 volunteers removed trash and other debris from the Rock River, its tributaries, and 11 parks and nearby public spaces in Beloit, Whitewater, Milton, Beaver Dam, and Waupun.

Volunteers included community members, municipal workers, and University of Wisconsin-Whitewater students.

In total, the Protect Wisconsin Waterways team interacted with over 900 community members throughout the day to educate them about the initiative and stormwater issues across the Rock River Basin and within their community.

The 2018 event was the second annual clean-up hosted by the Rock River Stormwater Group during the Great Rock River Sweep. The initiative is a one-day river sweep event across all 284 miles of the Rock River in Wisconsin and Illinois.

Each year, the event brings together communities to improve the shoreline and prevent further pollution across the Rock River Basin. The Protect Wisconsin Waterways team and volunteers removed items ranging from basic trash and recyclable plastic bottles to the more exotic items like rubber tires, running shoes, and other items.

Clean-ups were also planned along the Rock River near the Monterey Dam removal in Janesville and along the Rock River in Fort Atkinson. However, heavy rain throughout August resulted in high water flows along the Rock River in those communities.

The group postponed the two clean-up events in Janesville and Fort Atkinson until water levels reached a safer level. The hope is to complete these in October 2018.

The group is already planning the 2019 clean-up events across the Rock River Basin. Protect Wisconsin Waterways and the Rock River Stormwater Group hope to see more Rock River Coalition volunteers and other community members at next year’s event.

Mark your calendars for Saturday, September 7, 2019 and plan to join us in one or more locations around the Rock River Basin to clean up our waterways and nearby public spaces.

For more information about the rescheduled events in Janesville and Fort Atkinson, or if you are interested in volunteering during the 2019 event, please visit our page at protectwiwaterways.org.
Future Water Action Volunteers of Waunakee

Travis Steuber, Program Coordinator, Waunakee Village Center

Located directly behind our Village Center, Six Mile Creek weaves its way through Waunakee’s Village Park on the east side of the village. Known for its picturesque views as it travels beneath the Village Park bridges, it is almost an afterthought how much life there is living in this peaceful stream. The close proximity to our center makes this location the perfect spot for stream monitoring.

The Village Center began volunteer stream monitoring back in 2011. Instead of making it an internal activity for just our staff, we invited community members ages ten and over to register for free and join us. This is the first year that I, along with my co-worker Connie, have taken the lead with our stream monitoring program and it has been a great learning experience for everyone involved. This summer we have had an ambitious group of thirteen volunteers, ranging in age from ten to eighty. With two hach kits, our waders, boots and other equipment, we make the short stroll to Six Mile Creek the second Saturday of each month from May through October to record data.

Breaking off into two groups, we go through the steps to measure dissolved oxygen, temperature, water clarity, biotic index and water velocity, taking turns with different steps each month so everyone has the opportunity to learn something new. It really is amazing how each step is affected by different factors. The recent rainfall has caused the stream depth to rise considerably, the velocity to increase and water clarity has become murky instead of the usual clear water. The volunteers have really enjoyed comparing the data gathered through these varying conditions. With that being said, it is safe to say everyone’s favorite has been collecting samples and identifying the macroinvertebrates!

As we approach the end of the 2018 monitoring season, we look forward to continuing this great trend of monitoring Six Mile Creek and hopefully mold many other Water Action Volunteers to follow in our path along the way.

Catch the WAVe – Water Action Volunteers Webinar Series

This great series being held on two Tuesdays a month from October through January provides great information, not only for monitors, but for anyone interested in our local waters. Times for all the webinars is Noon - 1pm, central time.

For full descriptions or to register go to: http://watermonitoring.uwex.edu/wav/events.html

October 16, 2018: What is the Water Telling Us about the Land?  
Presenter: Paul McGinley, Water Quality Specialist, UW-Extension

October 30, 2018: An Introduction to Stream Ecology  
Presenter: Kristopher Wright, Aquatic Biologist, UW-Platteville

November 13, 2018: Office Hours with DNR Biologists  
Presenters: Craig Roessler and Camille Bruhn, DNR Water Quality Biologists

November 27, 2018: Using the Surface Water Data Viewer to Find Stations and Data  
Presenter: Ilana Haines, WAV Data Management and Special Projects, WDNR

December 11, 2018: Understanding Macroinvertebrates  
Presenter: Kristopher Wright, Aquatic Biologist, UW-Platteville

January 8, 2019: The Madness behind the Methods: WAV Stream Flow Explained  
Presenter: Kris Stepenuck, Extension Assistant Professor, University of Vermont

January 22, 2019: Increase Your Success in Finding and Submitting Grants  
Presenter: Dave Nolan, Watauga Grant Consultants

Updates from Johnson Creek Watershed Alliance

By Pat Giese

Due to high water, we intend to do our annual creek clean up sometime in October. Weather will influence our decision about that date since more rain makes our little, narrow creek too deep to wade in to retrieve garbage. Confirmation will be posted on our webpage and Facebook page.

Our village continues work on the expansion of the wastewater treatment plant this year. Last year, they expanded the interceptor, which meant that the construction site prevented us from accessing the creek for the annual clean-up.

That project is not due to be completed until next year. The Village of Johnson Creek posts regular updates on the progress of construction.

https://www.johnsoncreek-wi.us/?SEC=4C33969A-985F-4134-BE1C-A99E-D237E817 and click on updates...or just put Johnson Creek WWTF Updates in your search engine.

We are looking at the array of grants available from Wisconsin Natural Resources Foundation to determine which may fit with our long-term goal of establishing a conservancy park along Johnson Creek within our village. Once the wastewater treatment plant project is completed, access to the creek for dredging, removal of invasive species and creating riparian swales becomes more feasible.

Oconomowoc Watershed Protection Program (OWPP) Update

Another busy summer season for our program has us coordinating everything from producer meetings to canoeing events and helicopters in the air.

In the first half of August we held two “Shed Talk” meetings to bring our producers together for informational talks and inspiring news in a farmer to farmer forum. Our August 1st meeting held at the Magnus Farm focused on pollinators and included a guided tour of their 25 acre pollinator field planted in 2016.

On August 8th we met at the Lofty Farm in Washington County. Herb Lofty has been using cover crop practices for decades and Ross Bishop has been dubbed the Cover Crop King of the Cedar Lake area. Both spoke at this meeting and gave the group insights into their successful cover crop and low till or no-till farming operations.

On October 16th we will hold our 3rd Annual Field Technology Day workshop. This year’s meeting will be held in Washington County at the HH Ski Hill on Hwy 167 just east of Holy Hill. The main focus will be using low and no-till practices in combination with long term cover crop programs. The meeting is free and will run from 10AM to 2PM.

Our Aerial Seeding Program will commence again for the second year in mid-September. We have over 70 fields encompassing over 2,000 acres signed up to have rye and/or wheat flown into standing corn or soybeans. The seeds will be dropped via helicopter over a three day period in mid September and in mid October. Through this program we will provide cover crops that will be germinating prior to harvest of the cash crop, allowing them to get established adequately before the growing conditions deteriorate in November. The covers will then provide soil protection throughout the winter and into the vulnerable spring months next year.

Our OWPP has had a very successful year so far in 2018 and we now have over 50 individual projects completed across all three counties in the watershed.

Our extensive monitoring program has allowed us to zero in on several problem areas and BMPs are already in place and growing. The heavy rains in August and September certainly present challenges for our program but we are making great progress.
Continuing to Build the Rock River Trail!

“When we see land as a community to which we belong, we may begin to use it with love and respect.”

With inspiration from this famous quote by Aldo Leopold, the Rock River Trail Initiative seeks to engage people in being good stewards of the Rock River by offering them many different ways to experience it. While we’re very proud to be designated a National Water Trail, we also realize that not everyone paddles. So, over the last few years we’ve added an Aviation Route, Hiking Trail, Equestrian Trail, and Art Trail and in 2017 we added a Chocolate Trail and History Trail.

2018 has been a busy year!

In 2018 we added our ninth Rock River Trail component, a Birding Trail, and had our first 320-mile awards given to 2 bicyclists and an aviator. Three men from Beloit finished paddling all 320-miles and we just awarded a 320-mile award to a father-son team who drove the trail. In addition, we continue to hold our Free Oak Tree distribution along the trail. We are working building better connections and partnerships with the government entities and departments in communities and counties along the trail. We continue to improve trail signage and replace damaged signs.

2018 Highlights of The Rock River Trail Initiative

75,000 Oak Trees Distributed along the Rock River Trail

For the eighth year in a row, the Rock River Trail Initiative distributed 10,000 trees along the Rock River corridor. Chad Pregracke, president of Living Lands and Waters’ One Million Trees program, has graciously donated over 75,000 trees to the Rock River Trail Initiative and our watershed over the last eight years.

About The Rock River Trail Air Route

Emmons Patzer approached the Rock River Trail Initiative a few years ago recommending an Air Route that includes all 10 airports along the Rock River. The Air Route was approved, official signs were made and installed at all airports and the Air Route officially was opened in June 2016. Emmons is now the first official aviator to fly to all ten airports, completing his tour in two days, July 2-3, 2018.

Bicyclists are first to finish the Rock River Trail Bike Route

Northern Illinois University faculty member Dan Libman and WNIJ radio producer Carl Nelson were the first bicyclists to complete the 320-mile Rock River Trail by bicycle as part of a 5-day trek exploring historical, cultural, and environmental features of the Rock River Valley.

The Rock River Birding Trail

We’ve created the Rock River Birding Trail map to enable birders and others to discover the best places to observe birds. The Rock River corridor boasts vast wildlife refuges, state forests, and parks that provide the habitat and food sources birds depend on. During the spring and fall migration, millions of birds, from tiny warblers to giant white pelicans, make their way along the Rock River flyway.

Paddlers complete their 320-mile journey on the Rock River Trail

After completing the Illinois portion of the Rock River Trail in June 2017 with a 160 mile kayak journey to the Mississippi River in Rock Island, Illinois, three men from Beloit wanted to complete their journey on this National Water Trail. They departed on Saturday, July 7 from Theresa, Wisconsin and embarked on another 160 mile journey that took 7 days with overnight camping stops along the river. They arrived in Beloit on July 13, becoming the 7th, 8th and 9th men awarded the 320-Mile Paddler patch. We are still awaiting the first woman to paddle all 320-miles!

Learn all about the Rock River Trail at www.rockrivertrail.com or email info@rockrivertrail.com.

Support the RRC Through the CSW Campaign

The Fall campaign for the Community Shares of Wisconsin is in full swing. If your company is one of over a hundred businesses who provide this unique opportunity to give through your payroll deduction, we hope you will consider adding the Rock River Coalition to those you donate to.

100% of the donations that come to the Rock River Coalition through Community Shares of Wisconsin supports our stream monitoring program. Thank you to all who donate and support the valuable efforts of our Wisconsin non-profits.

For more information about Community Shares of Wisconsin and their 65 member non-profits go to: https://www.communityshares.com/.

Rock River Coalition sends a big THANK YOU to the Alliant Energy Foundation for their generosity and seeing the importance in helping environmental organizations like Rock River Coalition with their missions.

Shown here is Monty Baker, new RRC Board Member, and Bill Alt from Alliant Energy Foundation.

Become a RRC Member

In addition to supporting RRC work, members receive newsletters, notices of conferences, and special events. To become a member, complete the following:

Name ________________________________
Title ________________________________
Affiliation ____________________________
Address ______________________________
City __________________ State ________
Zip __________ Phone (____)__________
E-mail ________________________________

I am a member of _________________ Chapter.

Memberships Fees

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*Includes small businesses, organizations, lake districts, small municipalities and individual municipal departments
**Covers entire municipality including all departments, administrative staff and elected officials

Any donation or membership of $150 or more will be recognized and linked to your website from our website: www.rockrivercoalition.org

Donors of $500 or greater will receive an ad in this newsletter. Check out our website for more information.

Tax Deductible Donations

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Donations are greatly appreciated and can be targeted towards specific projects.

Please mail this completed form with check to:

Rock River Coalition
864 Collins Rd
Jefferson, WI 53549

or register and pay online with PayPal at: www.rockrivercoalition.org/membership.asp
UWM Students Work in Waubesa Wetlands

Graduate students in the UW-Madison’s Water Resources Management (WRM) program are assessing land-use effects on the Waubesa Wetlands and its watershed. Their Master’s project contributes to a long history of research and conservation efforts for this National Wetland of Distinction.

Community engagement is a major component to the WRM group project.

The graduate students were part of the Town of Dunn Hall Meeting on April 17, 2018, where they had the opportunity to share the goals and objectives of their project and to receive any feedback from community members. Pictured, Kyle Pepp, Courtney Botelho, Lianna Johnson, and Stephanie Herbst. Their project poster is available online at http://www.carpwaterqualityplan.org/waubesa-wetlands/waubesawetlands-about-us/.

On July 21, 2018, the WRM group hosted an education event, "Your Home in the Waubesa Wetlands Watershed," at Goodland County Park.

The goal of the event was to interact with homeowners in the watershed and inform them about how they can help lessen the impacts they have on water quality. Station hosts included Wisconsin Department of Natural Resources, Rock River Coalition, Friends of Waubesa Wetlands, and Natural Resources Foundation of Wisconsin. One station, led by Rachel Johnson, used an Enviroscape to demonstrate concepts of water pollution and prevention.

Graduate student Lianna Johnson looks on as children use a microscope to check out plankton in a water sample from Lake Waubesa.

Kids and adults alike enjoyed learning about the different macroinvertebrates and fish that can be found in Lake Waubesa and its tributaries. These and other educational stations were part of the "Your Home in the Waubesa Wetlands Watershed" event.

The Friends of Waubesa Wetlands hosted a canoe and kayak trip in the Waubesa Wetlands on September 7, 2018, with a generous donation from Rutabaga Paddlesports. Led by an expert ecologist, 34 attendees learned about the ecology, water quality, and biological diversity of the wetlands, and had fun!

The Friends of Waubesa Wetlands also regularly host ecological restoration workdays in the Waubesa Wetlands. Join the volunteer effort to restore the Waubesa Wetlands on the first Saturday of every other month. To stay in the loop about all Waubesa Wetlands events, FOLLOW and LIKE the Friends of Waubesa Wetlands Facebook page at www.facebook.com/friendsofwaubesa. Next Workday is November 3! Photo by Kyle Pepp

Monitoring the water quality of Swan and Murphy’s Creeks is part of the group’s efforts to assess land-use effects on the Waubesa watershed. The cohort collects data every month and periodically gathers storm samples. Some parameters the students are monitoring nitrogen, phosphorus, total suspended solids, chlorides, conductivity, flow and pH. Pictured are graduate students Nemesis Ortiz-Declet and Lianna Johnson gather data from a flow meter in Swan Creek.

Wetlands provide numerous services, such as water filtration, carbon storage, and ecological habitat, but their ability to provide such services depends upon its location within the watershed and the land use within that watershed.

The cohort is partnering with the DNR to conduct Ecological Assessments of wetlands along the Swan Creek corridor. These assessments will help pinpoint which ecosystem services could be affected by land-use changes in the watershed. Pictured, Wisconsin Department of Natural Resources wetland specialist Tom Bernthal assists graduate students Rachel Johnson and Mitch Buthod with their wetland plant identification.

Snapshot Day: Partnering to Protect Wisconsin’s Waters

By Natalie Dutack, Watershed Groups Manager, River Alliance of Wisconsin

On Saturday August 18th, my family and I were scanning the waters of Black Earth Creek for aquatic invasive species (AIS). I passed a rake to my partner, Tim, who was standing along the edge of a trail bridge about 4 feet over the creek. Special care was needed at our Cross Plains event, as Black Earth is one of 4 creeks in the state containing the prolific, highly invasive New Zealand Mudsnail (NZMS).

Volunteers were instructed to stay out of the waters and decontaminate all equipment used with bleach solution, followed by steam cleaning, which is currently the only effective way to kill NZMS. This was Tim’s unconventional trick (only permissible under my supervision) to triple-ensure that we never came close to the banks while gathering samples. Across the state at over 150 locations other volunteers, while likely not balancing over a stream, were joining us in the same search on our 5th annual Snapshot Day.

River Alliance hosted the first Snapshot Day in 2014, in partnership with the Wisconsin Department of Natural Resources, as an effort to detect AIS entering our rivers through pathways related to human access – bridges being a key focus. Since then this highly successful program has grown – University of Wisconsin Extension has joined as a coordinating partner and focus has expanded to include lakes and other sites where people and water meet. But at the end of the day the premise and training are the same – volunteers and local partners join up to help prevent the spread of invasive species that harm our rivers, lakes, and wetlands.

On a typical Snapshot Day around 9:00 am our volunteers meet at a rendezvous site, receive a brief training on species ID and monitoring protocols, and are equipped with the tools needed to find them.

Site coordinators then send their teams out to monitoring locations carefully selected months before. Specimens are collected, photographed, and recorded on data sheets and around noon, everyone reconvenes with their samples, where trainers help to verify their findings. All data is then entered into WI DNR’s Surface Water Integrated Monitoring System (SWIMS), and is used to help guide management and prevention efforts.

Story continued on Page 2 - Why Snapshot Monitoring is Important.