Conservation Connections - Improving Conditions for Aquatic Species

A lot of wildlife habitat improvement techniques such as creating and enhancing riparian buffers, improving forest health through thinning, improving native plant diversity on your property, conducting prescribed burns, installing rain gardens and ponds, creating edge of field buffers, and so on improve not only terrestrial habitat for birds, mammals, pollinators, reptiles, and amphibians on land, but also aquatic habitat for benthic macroinvertebrates.

Benthic macroinvertebrates are aquatic insects that live their whole life or part of their life in the substrate of streams. Only certain aquatic invertebrates are found in water that is unpolluted, while other species are more tolerant to changes in water quality.

Mayflies, stoneflies, and caddisflies are the top three aquatic invertebrates to look at when checking water quality in a stream that flows throughout the year. Stoneflies are the least tolerant of the three to pollution. If you find any of these species in waterways (especially in group one shown in the photo), you know that you have high-quality water and bonus, their presence is also a sign of good fishing!

Funding Available for BMP Demonstration in the Richland Creek & Middle Fork Watersheds:

Funding is available now to help achieve your goals on your property through the use of best management practices such as low impact development features like rain gardens, rain harvesting, landscape management as well as unpaved road and driveway improvements.

Melissa Welch, Program Coordinator
melissa@beaverwatershedalliance.org
Cell: 479-719-5520

BMP Spotlight: Pond Sampling

Spring is an ideal time to sample and test the quality of your ponds. Local resources such as the U of A Cooperative Extension Service and the Arkansas Water Resources Center can help analyze your water samples. What does it cost for water testing in Arkansas? There is a base sample handling fee of $5. Additional costs vary depending on what you want to test for; below is a partial list of tests they can conduct on your sample. Knowing the water quality of your pond can help with your goals for irrigation, watering livestock, and more.

$8 pH
$8 Conductivity
$10 Hardness
$10 Alkalinity
$15 total solids
$30 Metals Suite
$15 Total Phosphorous

Arkansas Water Resources Center

Don Tyson Center for Agricultural Sciences
(New Location)
1371 W Altheimer Drive Room 133
Fayetteville, AR 72704
479.575.7317
awrcwql@uark.edu
Funding Awarded to Aid Town Branch - West Fork Watershed

The National Fish and Wildlife Foundation (NFWF) has awarded Beaver Watershed Alliance $37,710.56 for the grant proposal, “Initiating Community Stewardship through Watershed Discovery.”

The NFWF received over 250 proposals nationwide for their program, The Five Star and Urban Waters Restoration Program, which seeks to develop nation-wide-community stewardship of local natural resources, preserve these resources for future generations and enhance habitat for local wildlife.

Funding is awarded to projects which seek to address water quality issues in priority watersheds, such as erosion due to unstable streambanks, pollution from stormwater runoff, and degraded shorelines caused by development.

BWA’s project, Initiating Community Stewardship through Watershed Discovery, will target the Town Branch watershed, a sub-watershed of the West Fork-White River watershed. The West Fork of the White River (WFWR) flows into Beaver Lake, the regional drinking water source for 1 in 6 Arkansans. The WFWR is an impaired river impacted by sediment and nutrients, and has lost one-third of aquatic species on record since 1894 (Brown et al., 2003). Through community partnerships and stakeholder engagement, Beaver Watershed Alliance (BWA) will conduct on the ground restoration activities that will include development of an ecological restoration plan for 97 acres of upland urban forest on Mt. Sequoyah, Fayetteville, removal of invasive species, such as bush honeysuckle, from 108 acres, enhancement of 20 acres of riparian habitat, removal of 6,000 pounds of bulky waste and trash from 15 miles of waterway, and implementation of five green infrastructure elements such as rain gardens, bioswales and pervious surfaces within the project area.

This project seeks to fulfill components of the US EPA accepted 9-element Beaver Lake Watershed Protection Strategy to conduct outreach and education, establish low impact development, restore riparian buffers, and reduce sediment and nutrient loading to the region's drinking water source through increasing forest health and riparian area and providing public outreach/education and awareness to stakeholders throughout the watershed. In conjunction, this project also supports the Arkansas Natural Resources Commission's Nonpoint Source Pollution Plan, Arkansas Game and Fish Commission's Wildlife Action Plan, and the National Wildlife Federation's Mayors’ Monarch Pledge.

Community Watershed Meetings will be held throughout the project time line of October 2017 - October 2019. Participate in these watershed meetings to help identify areas of concern for erosion, waste and invasive species, learn more about this and other watershed improvement projects, and stay connected with your local resources to improve your properties and protect local waterways. To find out more about when the next Community Watershed Meeting will take place, visit our calendar on www.beaverwatershedalliance.org or call 479-750-8007.

Special funding is available to cities, counties, nonprofits and public entities to install green infrastructure features to demonstrate the benefits of removing, reducing and/or off-setting hard surfaces and replacing with pervious surfaces and natural filters such as native plants. Contact Beaver Watershed Alliance for more info!

Green Infrastructure can include:
- Rain Gardens
- Bioswales
- Native Plant Filter Strips
- Cisterns
- Pervious Surfaces
The West Fork - White River Watershed Restoration Initiative is a voluntary program that provides financial and technical assistance to agricultural producers and forested property landowners for addressing water quality concerns in approximately 1/3 of the West Fork - White River watershed (see map - project area highlighted blue).

If you live on or around the West-Fork of the White River, Dye Creek, Rock Creek, West Mountain Branch, and Ward-Slough, these are areas that are a part of this watershed initiative and you are eligible for special funding through the USDA-Natural Resources Conservation Services to help install Environmental Quality Incentives Program (EQIP) practices that can address resource concerns, such as water quality, streambank erosion and inadequate habitat for fish and wildlife.

Beaver Watershed Alliance can come visit you at your property and help you start a site assessment plan for your pastured or forested lands and help you learn about opportunities you have on your property to participate in EQIP cost-share programs.

Free plans for your property are available, including Wildlife Management Plans, Conservation Plans, and Nutrient Management Plans, and BWA will assist you with obtaining these services/plans at no cost to you.

Contact Melissa Welch, Program Coordinator, to visit more about this unique opportunity for your lands and water!

melissa@beaverwatershedalliance.org
479-750-8007

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**Nutrient Management**

**What is a Nutrient Surplus Area?**

A Nutrient Surplus Area (NSA) is an area that has been designated by the Arkansas General Assembly as having such high concentrations of one or more nutrients that continued unrestricted application of the nutrient could negatively impact soil fertility and waters of the state.

**What is a Nutrient Management Plan?**

A "nutrient management plan" is a document approved by a conservation district board that is prepared to assist landowners and operators in the proper management and utilization of nutrient sources for maximum soil fertility and protection of state waters. A nutrient management plan will not be approved unless it is prepared by a Certified Nutrient Planner.

**Do I need one?**

If you plan to apply litter, sewage sludge, or commercial fertilizer within an area designated as a "Nutrient Surplus Area," Arkansas law requires you to obtain a nutrient management plan. If you do not plan to apply nutrients within a nutrient surplus area, usage of a nutrient management plan is voluntary.

Contact your local County Conservation District to obtain a Nutrient Management Plan. BWA also offers assistance to landowners to help obtain these plans.
Low Impact Development - Retrofits

Low impact development (LID) is a green infrastructure approach to stormwater management that uses simple and cost effective landscape features and other techniques that help reduce flood risks, clean and store stormwater and helps residents conserve water.

Retrofitting your home with water-efficient landscaping, water harvesting containers, native plants and other low impact landscape features will help your property be more resilient to the storms, lower your landscape maintenance and save you money long-term. BWA can help with retrofitting your landscapes through free consultations, free educational workshops such as the Rain Ready programs, and can connect you with vendors and contractors. Call us at 479-750-8007 or email info@beaverwatershedalliance.org to learn more!

Funding Available Now

Beaver Watershed Alliance, along with our partners and sponsors, is making available grant funding to assist landowners and property owners with watershed improvement programs. Applications for funding can be found on our website, www.beaverwatershedalliance.org, or contact us and we will help connect you to the right program. Phone 479-750-8007 / Email info@beaverwatershedalliance.org.

Free Tree & Shrub Program

BWA provides a wide variety (30 species) of free, bare-root seedling, Ozark native trees and shrubs for landowners that are interested in using these plants to restore or enhance their streamside (riparian area) vegetation or reforest their property.

Thank you to all that participated in the 2018 program, over 10,000 trees were processed and delivered to homes in the Beaver Lake watershed!

Ordering August - Dec 2018
Orders Arrive March 2019

LID Mini-Grant

The LID Mini-Grant Program continues to assist property owners, businesses, schools, cities, churches and other public spaces to implement a number of practices to improve water quality for the Beaver Lake watershed.

Applications are taken throughout the year and will be reviewed as they are received. BWA offers technical assistance to help select a location, design and can recommend management techniques for rain gardens.

$250 for Landowners/Residents
$1,000 for Business/Public Spaces

BMP Mini-Grant

The Best Management Practice (BMP) Mini-Grant Program can fund up to 10% or maximum of $10,000 for the cost of implementing BMPs on private land, residential spaces, business locations and public places.

Applications are taken throughout the year and will be reviewed as they are received.

To learn more about BMPs that are eligible for funding, please contact Beaver Watershed Alliance.
Inside:
Rain Ready Programs and Funding Opportunities

Free Educational Programs and Volunteer Opportunities

Please email info@beaverwatershedalliance.org or call 479-750-8007 to RSVP and to stay informed of the details for these events!

<table>
<thead>
<tr>
<th>FREE PROGRAM</th>
<th>TIME</th>
<th>DATE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Watershed Meeting</td>
<td>6 pm</td>
<td>April 26, 2018</td>
<td>St. Paul Activity Center</td>
</tr>
<tr>
<td>Kudzu Kill at Winslow</td>
<td>1 pm - 4 pm</td>
<td>April 28, 2018</td>
<td>Tunnel Park, Winslow</td>
</tr>
<tr>
<td>Mt Sequoyah Invasive Plant Pull</td>
<td>3 pm - 5 pm</td>
<td>May 4, 2018</td>
<td>Mt Sequoyah Trail Head, Fayetteville</td>
</tr>
<tr>
<td>Devil’s Eyebrow Volunteer Mgmt Day</td>
<td>9 am - 12 pm</td>
<td>May 12, 2018</td>
<td>Devil’s Eyebrow Natural Area</td>
</tr>
<tr>
<td>13th Annual West Fork Cleanup</td>
<td>9 am - 1 pm</td>
<td>May 19, 2018</td>
<td>West Fork/Fayetteville</td>
</tr>
<tr>
<td>Low Head Dam Removal - Watershed Meeting</td>
<td>5:30 pm</td>
<td>May 21, 2018</td>
<td>City Hall, Fayetteville</td>
</tr>
</tbody>
</table>
Hello Beaver Lake Watershed Resident, Landowner, or Manager,

We live in a special place, nestled here in the Ozark Highlands and the headwaters of the White River. With four seasons, a growing region, and abundant natural resources, its a great place to live, work and play. We are very fortunate to have high-quality water here, too. Did you know the White River starts in NWA? There are several smaller tributaries to the White River, that spring from the ground and become larger waterways, and it all drains to Beaver Lake, our drinking water source for 1 in 6 Arkansans. The journey continues for the White River, when it leaves the Beaver Lake dam, it empties into Table Rock Lake, and then Bull Shoals lake, then the river turns back south and crosses eastern Arkansas all the way to the Mississippi River, which empties into the Gulf of Mexico!

Just like we know our address, our county and our state, its good to know what watershed you live in and where your water goes. The main sub-watersheds in the Beaver Lake watershed include the West-Fork of the White River, the Middle Fork-White River, East Fork-White River, Richland Creek, Lakeside of Beaver Lake, War Eagle, and the Headwaters, which are nestled in the St. Paul, Pettigrew areas. Not sure what sub-watershed you live in? We can help you find out and encourage you to discover your watershed!

We also want to make sure we continue to have high water quality for generations to come, for drinking water, recreation, industry, agriculture, ecological systems and wildlife. We want to help be good stewards of the land and water that we have that so many people downstream depend on. Working together will keep Arkansas the special place it is to raise our families, farm, work and recreate and have high quality water and natural resources.

Its because of your willingness to make a difference that we have so many success stories to share, too. Whether its helping a farmer get funding to increase production while protecting water resources, helping residents correct erosion issues that compromise their homes, helping communities preserve open space, restoring streambanks to stop sediment from going into Beaver Lake, planting over 35,000 native trees and shrubs to help increase riparian and forested areas, these are just a few examples of what you have made happen and all of these actions help keep the Beaver Lake watershed clean and pristine!

Beaver Watershed Alliance team is here to work for you, and please consider us as a resource and give us a call if you have some land management goals, interests, or concerns that you would like to share or receive free consultation about, please check in with us by calling 479-750-8007 or emailing us at info@beaverwatershedalliance.org.

Sincerely,

BWA Team

Glossary of Newsletter Words

**Retrofits**— Improving or enhancing existing landscapes by removing hard surfaces and replacing with filtration techniques such as native plant landscapes, pervious pavers and other low impact technologies.

**Sub-Watershed**— Just as creeks drain into rivers, watersheds are nearly always part of a larger watershed. Watersheds can be subdivided into smaller units known as "sub-watersheds," which collectively flow together to form larger sub-basins and "river basins."

**Nutrient Surplus Area**— an area that has been designated by the Arkansas General Assembly as having such high concentrations of one or more nutrients that continued unrestricted application of the nutrient could negatively impact soil fertility and waters of the state.

**Benthic macroinvertebrates** - are aquatic insects that live their whole life or part of their life in the substrate of streams. Only certain aquatic invertebrates are found in water that is unpolluted, while other species are more tolerant to changes in water quality.