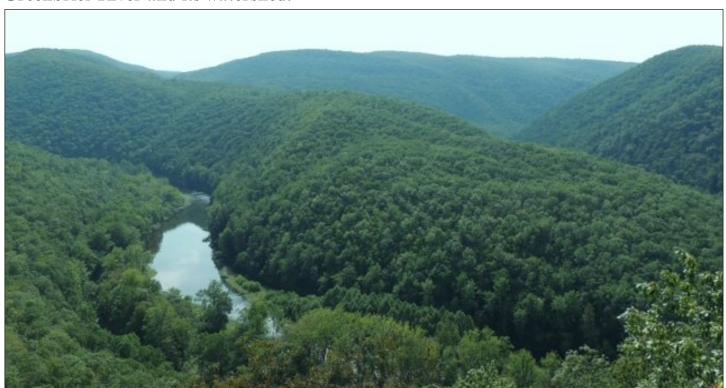


Greenbrier River Watershed Activities 2014-2015

Our statement of purpose is as follows: The Greenbrier River should be saved as a legacy. It is an essential part of our lives that enriches us and inspires us. The river watershed is a unique ecosystem with rich varieties of aquatic, riparian, and upland wildlife, tributaries, farmland, forest, people, and communities. Our purpose is to promote the maintenance, preservation, protection, and restoration of the ecological integrity of the Greenbrier River and its watershed.



Founded in 1992, GRWA is one of the oldest watershed groups in West Virginia. The Greenbrier River Watershed includes 1637 square miles of land and 270.86 stream miles, in Pocahontas, Greenbrier, Monroe, and Summers Counties, West Virginia. Our Facebook page, Greenbrier Watershed has about 1,000 people signed up. Newsletters and action alerts go out to 800+ mailing list via constant contact when needed. We are a 501 (c) (3) organization recognized by the IRS.

The Greenbrier River Watershed Association is made up of members from all walks of life. Some members have camps along the river and are here only in summer, while others are farmers whose families have lived here for many generations. Business owners, cavers, landowners, retirees, fishermen and women, recreational river and trail users, trail enthusiasts, and many other concerned citizens make up our membership and our board of directors. We are a very grassroots oriented organization representing all facets of the community.

Land Protection:

Last year we received a grant from The West Virginia Outdoor Heritage Conservation Fund to protect 250 acres of land along the river and trail in Pocahontas and Greenbrier Counties. Required surveying and environmental assessments are complete. This project should be completed very soon. Our partners for this conservation easement are Greenbrier Land Conservation Trust, West Virginia Land Trust and the New River Conservancy. The Watershed Association will ease 125 acres it owns and two other landowners will put easements on land across from the Spice Run Wilderness on the Mon Forest. We hope this will boost the local land trust and encourage other river landowners to protect the conservation values of their land.

We have also supported the creation of the Birthplace Of Rivers National Monument in the Cranberry area of the Monongahela National Forest. We believe this designation would be a great boon to the local economies and offer recognition and protection to important headwaters stream.

Public Involvement:

This year we have held several public events and several meetings to give people more information about proposed pipelines in our area. Combined attendance at those meetings has been well over one thousand people. Recently an event was held in conjunction with Friends of the Lower Greenbrier and West Virginia Cave Conservancy at Lost World Caverns. This has become an annual event. Free cave tours and children's activities, music and informational displays rounded out a great afternoon of learning about karst and meeting new friends. We also co-sponsored an event with KEEN footwear in Lewisburg to promote the Birthplace of Rivers National Monument Proposal.



Wetlands:

We have two wetlands projects in the works, one with the Fish Hatchery at White Sulphur Springs, in cooperation with the West Virginia Soil Conservation Agency, and one through DEP In Lieu funding, with the City of Ronceverte. This last project is on hold due to funding, but will be a valuable addition to the Ronceverte City park on the river.

The Fish Hatchery Project wetland is underway, and our portion of the grant is for outreach and education. We are designing interpretive signs and making a brochure for teachers and for the public. This little park already has a walking trail and a short hike on a marked nature trail, plus a fishing pond. When it is completed it will be a great amenity for White Sulphur Springs and an enhanced field trip for teachers and students to learn about the importance of wetlands.

Karst F ducation:

We envision the Fish Hatchery Project and the karst trail as part of two great field trips to teach students about our area's unique resources. Last year we completed and printed a brochure for the karst trail at Lost World Caverns. An earlier 319 Grant funded creation of a Karst Trail at Lost World Caverns, free to the public. There are 4 3X5 signs and kiosks so that visitors may learn more about our unique situation and care about what they might not see in terms of pollution of underground streams. Last year's grant funding built on that educational opportunity by making classroom materials so teachers can teach a unit on karst and possibly make a field trip to the caverns and karst trail with students. The trail is suitable for community groups and civic organizations as well as school groups.



Photo by Louanne McConnell Fatora

Preservation of Water Quality:

We are working with West Virginia Rivers Coalition and Trout Unlimited on a water quality monitoring program engaging citizens to conduct water quality monitoring to establish baseline conditions where pipeline construction is proposed. An important partnership and accomplishment last year was our work with the City of Ronceverte to push for a new sewage treatment plant. WV DEP staff were very impressive in their work to support the project and West Virginia Legislature approved matching grant funds for the project. Algae continues to be a big problem on the Greenbrier, and the new plant will help everything downstream. Unfortunately, the City of Lewisburg and PSD 1 fought the plant, but Ronceverte succeeded in doing the right thing for the river. Our members wrote letters to the editor, attended public meetings and PSC hearings to fight for the plant. The plant is now under construction!

Safe Drinking Water:

On the other hand, we have worked with the City of Lewisburg to get a plan to move the city's drinking water intake upstream from the outflow of the county landfill. West Virginia Land Trust has a plan to acquire properties along the corridor on the Greenbrier that would affect drinking water supplies for Lewisburg. We are partnering with them on this. Meetings were held in three locations to let landowners know what conservation easements might entail. GRWA invited local landowners to participate and we attended the meetings.

We have also partnered with West Virginia Rivers Coalition on drinking water protection to inform the public on how to get involved in the sourcewater protection planning process.

Public Input into Planning:

For the last four years, GRWA has pushed for passage of the new comprehensive plan for Greenbrier County. The plan finally passed last year, but much tweaking is going on which may weaken facets which protect the environment. We are struggling to keep language in the plan that protects karst and declares the importance of drinking water supplies by encouraging our members to attend planning meetings, and by requesting appointees to the board who understand the importance of those parts of the plan.

Public Education:

As always, we participated in Make it Shine cleanup in 2015

We renewed our support for the Great Greenbrier River Race, showcasing the river and trail to more than 500 participants and their friends and families. This annual race is a project of the Greenbrier River Trail Association, which this year purchased land for a new, larger parking lot at the southern end of the trail, increasing tourism potential and featuring 80 miles of riverside trail. Plans are ongoing for the state to purchase the 5.5 acre property from the trail association and include restrooms and changing areas in addition to the vastly improved parking lot.

This year we were proud to be one of 26 groups and individuals from around the state awarded a DEP Environmental Award for our outreach and education efforts.



Leslee McCarty receives our award from Randy Huffman, DEP director. Dennis Stottlemyer, left, nominated us.

Impacts of proposed pipelines Since last year, we have had to add an "s" to the pipeline component of our issues! Originally, the East and West Forks of the Greenbrier were targeted for crossing by a 550 mile gas pipeline. Now that line is considering a crossing of the mainstem at Clover Lick as well. Very soon after we heard of the Atlantic Coast Pipeline, we heard that the Mountain Valley Pipeline proposes to cross the river at Pence Springs! These large, 42 inch lines have never been installed in such rugged terrain as our mountains. Many of our members and fellow citizens are wondering about eminent domain, property values, safety, possible destruction of streams, loss of habitat, invasive species, water supply protection, karst areas, effects on the National Forest and many, many other concerns. GRWA is committed to getting correct information out about the effects of these proposed pipelines. The project is expected to take four years, if approved by FERC. We have held meetings in all affected counties to help people understand the process. If you are concerned about this issue, please make sure we have your email to receive updates on actions you can take.

Parts of the river continue to be listed on the 303-D list. The Greenbrier River Watershed is located in Greenbrier, Pocahontas, Monroe, and Summers Counties, in Southeastern West Virginia. Our stream monitoring data and DEP TMDL studies have revealed that contamination from sewage treatment plants and malfunctioning septic systems, along with runoff from agriculture and development are problems on the Greenbrier River and many tributaries. Algae caused from sewage treatment plants' inability to remove phosphorus, combined with natural conditions at low water are a concern in summer from Marlinton to below Alderson. Development on karst, and lack of awareness about karst topography among citizens and public officials contributes to our problem with pollution. The Greenbrier is the main drinking water source for several community water systems. The river and its tributaries are also used for fishing and recreation. Fecal coliform counts in lower portions of the river have caused local health departments to issue warnings to recreational users. Algae prevents recreational use in parts of the river. Malfunctioning sewage treatment plants have incurred severe fines from West Virginia DEP.

Pollution of groundwater and underground water and springs from farming and from development near towns and subdivisions is another major concern for our watershed. Researchers working to determine sources of water pollution in cave systems have found cryptosporidium and E. Coli 0157, in addition to high fecal coliform counts in cave streams and springs underlying farm fields and feedlots and failed septic systems in this region of karst topography.



Above Durbin, where Dominion ACP pipeline wants to cross.

Photo by Dominion Pipeline Monitoring Coalition

Marcellus drilling waste and Marcellus well permitting in karst. Not much is known about the possible effects of drilling in karst topography for Marcellus and Utica Shale gas reserves. Local residents fear contamination of groundwater if wells are drilled through porous karst. Legislation passed gives some protection for karst, but it is not really clear how much. The Greenbrier County landfill has taken drill cuttings in the past from deep Marcellus wells. Because the landfill is situated above the drinking water intake for Lewisburg, many fear the local water supply may become contaminated with this or other waste.. This is one reason we are working with the city to move the drinking water supply upstream. We have held public meetings with DEP officials on this subject.

Karst. Greenbrier River Valley Karst remains on the list of Top Ten Endangered Cave Systems of the World (Karst Waters Institute). This involves about 3/4ths of the watershed's range. We are constantly working to inform people about the special values of karst terrain.

Certainly people and communities will not value what they don't understand. Our outreach and education programs are greatly increasing community understanding of the watershed, the issues challenging the area, and possible solutions. Our successes in public education have convinced us that education and outreach can improve citizen participation in making informed changes. In addition to working through public meetings and task forces, we will renew our concentration on schools and civic groups and expanding our reach through cooperation with public agencies, holding public information meetings with caving groups, farmland interests, civic organizations, DEP, NRCS, WVCA and governmental bodies.

Partners. The City of Ronceverte and the City of Lewisburg continue to be on our list of partners, and along with our renewing partnerships with WV Conservation Agency and the US Fish and Wildlife Service for a wetlands project at the Fish Hatchery in White Sulphur Springs. We are also working with the local Pasture Network to build outreach with farmers. The West Virginia Land Trust and local land trust are our partners in protecting sourcewater and placing conservation easements on fragile landscapes. New River Conservancy and the WV Outdoor Heritage Foundation continue to assist with land conservation goals.

We continue to partner with Friends of the Lower Greenbrier and now Preserve Monroe and Friends of Western Greenbrier are our partners.

The West Virginia Cave Conservancy and Lost World Caverns join with us to educate the public about caves and karst.

New partners for water monitoring are West Virginia Rivers Coalition and Trout Unlimited.

The Greenbrier Classic Fly Fishing Tournament gives us a portion of their proceeds each year for our efforts.

White Sulphur Springs Elementary School has renewed their partnership with us for this school year.



We are proud sponsors of the annual Great Greenbrier River Race.

WVDEP Office of the Environmental Advocate has met with us to try and help us navigate the regulatory system for pipelines. We consider DEP an important partner!

Long Term Goals:

- 1. To continue our work with various towns in the watershed, helping overcome problems with their wastewater treatment systems, and assisting with decision making facts on algae as well as pollution of underground and above ground streams and springs.
- 2. Continue our work with the DEP to encourage enforcement of existing laws with regard to pollution of the river and groundwater pollution, especially as they relate to pipeline construction issues.
- 3. Strengthen local community groups that are working to improve water quality. At least three new groups have sprung up because of pipeline issues, and we hope to provide them with accurate information.
- 4. Use our knowledge of karst topography in order to educate the public about the importance of karst in development decisions in our watershed.
- 5. Continue working with agriculture to improve water quality.
- 6. Partner with Farmland Protection Boards, Land Trusts and other groups to encourage a land\ conservation strategy for the Greenbrier River Watershed.
- 7. Partner with more public/private schools and civic groups to increase opportunities for environmental education.
- 8. Stay abreast of Marcellus drilling concerns, including pipeline issues, and make sure the public has up-to-date, correct information.

Short Term Goals:

- 1. Expand our watershed education by partnering with agencies, schools, and community groups.
- 2. Boost knowledge and involvement of community in watershed related issues, especially Marcellus drilling and infrastructure and the need for better sewage treatment and cooperation among towns.
- 3. Increase public awareness of water quality issues on karst.
- 4. Complete conservation easements on acreage on the river and boost the local land trust and foster more cooperation by landowners to obtain more easements.
- 5. Continue efforts on outreach to garner more members and support from the public to sustain the group and further the mission of the GRWA.

Newest GRWA Board Members



TIFF HILTON

As a member of the Office of Special Reclamation for the West Virginia DEP, Tiff Hilton works on restoring Acid Mine Drainage impacted streams through water treatment design and mine site reclamation. He has a B.S. in Environmental Science and a M.S. in GeoBio Physical Modeling from Marshall University.



AUTUMN LEAH BRYSON

Leah grew up swimming in the Greenbrier River where she gained her passion for protecting the environment. She obtained a BS in Environmental Protection and a MS in Soil Science from West Virginia University. After graduating, she worked in Alaska and Nevada assisting Tribes in preserving their natural resources. Feeling the pull of the Appalachians, Leah returned home to help the state's rivers and streams serving as Program Director for WV Rivers Coalition. When not working, she enjoys the outdoors; hunting, fishing, hiking and biking.

MARK YOUR CALENDARS

MAY 22, 2016 **Member Picnic** at the Cathole residence of Bonnie and Gary Brown

AUGUST 27, 2016 Annual Watershed Celebration at Lost World Caverns

To Contact us, please email greenbrierh2o@gmail.com, visit our website www.greenbrier.org, or visit our Facebook page **Greenbrier Watershed**

We may also be reached by phone at (304) 647-4792 or by mail at P.O. Box 1419, Lewisburg, West Virginia 24901

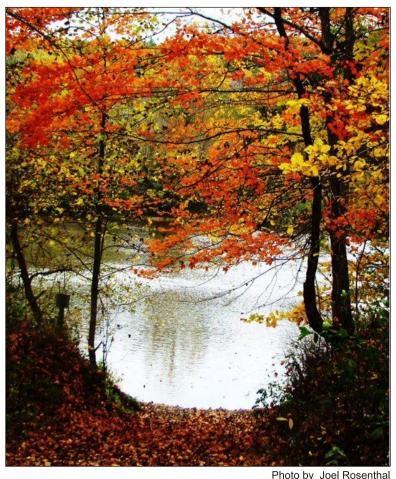


Photo by Joel Rosenthal

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