



Photo by David Smaldone

Friends of Deckers Creek State of the Creek Report 2023



Our Mission: To improve the natural qualities of, increase the public concern for, and promote the enjoyment of the Deckers Creek Watershed.

Dillan Creek Acid Mine Drainage Treatment Site

In the summer of 2023, FODC completed construction of a brand new acid mine drainage treatment site. Dillan Creek, a headwater tributary of Deckers Creek, is listed as impaired under the Clean Water Act due to its low pH, high iron and aluminum concentrations, and high fecal coliform levels. The low pH and high metal concentrations in Dillan Creek can be attributed to acid mine drainage from an abandoned highwall mine.

Acid mine drainage (AMD) is the biggest pollutant in the Deckers Creek Watershed. The acid mine drainage in our watershed comes from abandoned coal mines where mining has exposed pyrite to water and air, which react to form sulfuric acid and dissolved iron. As these pollutants are carried into our streams, the highly acidic solution dissolves even more metals that are present in the bedrock and surrounding mined coal beds, such as iron and aluminum. Higher concentrations of these metals in our streams have detrimental effects on aquatic ecosystems.



Photo: View from one of the open limestone channels.

Our Dillan Creek acid mine drainage treatment site operates by routing AMD from two seeps through open limestone channels and into a self-flushing limestone leach bed. Since limestone is a base with a high pH, the channels and leach bed neutralize the low pH of the acidic solution. After this, an automatic drainage system flushes the neutralized water out of the leach bed and into a constructed wetland. This constructed wetland removes metals from the water through plant uptake and soil adsorption before the now clean water enters Dillan Creek.

This is a passive treatment site, which generally require less maintenance, power, and operational costs than active sites such as our Kanes Creek South Site #1 and Valley Highwall #3 sites. When funding and time allow us, we visit our treatment sites quarterly to conduct inspections, perform maintenance, and pull water samples to ensure that everything is operating as it should.

This project was completed through funding and support by Friends of Deckers Creek, the West Virginia Department of Environmental Protection (WVDEP), the United States Office of Surface Mining Reclamation and Enforcement (OSMRE), landowners Mac and Amanda, AmeriCorps VISTAs Grace and Chaela, and volunteers Thos, Lily, and Ken.

Location	pH	Aluminum (mg/L)	Iron (mg/L)
System In	2.95	22.942	10.32
System Out	6.74	2.784	0.491
Healthy Stream	6.5 to 9	<3.2	<1.0

Table: Latest pH and metal concentrations at our Dillan Creek AMD treatment site compared to a healthy stream.

Note: Recommended metal concentrations in freshwater vary depending on a combination of factors. Total metal concentrations for the healthy stream comparison in this table are based on the EPA's maximum water quality criteria recommendations.

Always a Friend of the Creek

by Katie Cooley

Inspiration is a powerful thing. My time as Environmental and Outreach Specialist at Friends of Deckers Creek ended in June of 2023, but I'll always be a friend of the creek. I remember researching FODC when I was first applying there and learning that it began as a grassroots effort by a small group of outdoor enthusiasts who became concerned with the state of the creek and organized a trash cleanup. This small group of dedicated people blossomed into two-time Watershed of the Year award winners (2004 and 2011) and the amazing force that FODC is today. I came across this quote, and I'd like to share it again here: "Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has." Margaret Mead

FODC's strength is in how it empowers people to make a difference in their local environment and community. During my time at FODC, I had the opportunity to make a difference time and again. I watched a little girl's eyes light up as she overcame her fear and held a snake for the first time. I watched a group of 52 smiling volunteers clean up trash in the creek for the Make it Shine cleanup event. I watched local businesses come together to make donations to the annual Spring Meltdown, to raise money to clean the creek. And I had the joy of watching the fascination on people's faces for many educational events as they released a native butterfly or examined a native frog.

FODC is crucial for helping people to form a conservation ethic. What I mean is that if people are never exposed to nature, they will not care about it. Through educational programming, FODC helps with that exposure, that initial first step. But just as important, FODC brings people together. The community rallies around the creek and I personally made many friends along the way.

There are many exciting things on the horizon for the creek. I just received news that we got funding to do eDNA hellbender sampling in the creek this year. Although there are no hellbenders in the creek now, the idea is to provide baseline data so that we can quantify the improvement should we begin to see hellbenders in the future. What a hopeful endeavor! I eagerly look ahead to the days when hellbenders will glide through the crisp clean waters of the creek.

Friends of Deckers Creek is still a small group of dedicated individuals, but they are a force to be reckoned with to be sure. I am so fortunate to be a friend of the creek and those amazing individuals who make FODC so powerful. If you are looking for community, or a way to make a difference in your corner of the world, or an avenue to learn about nature in your watershed, you have found it, too. How lucky you are!

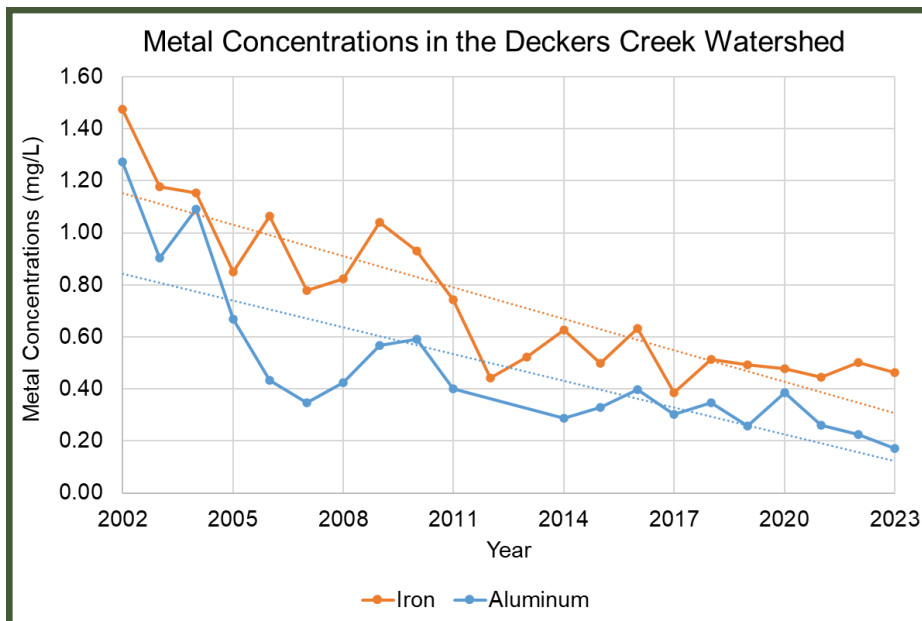
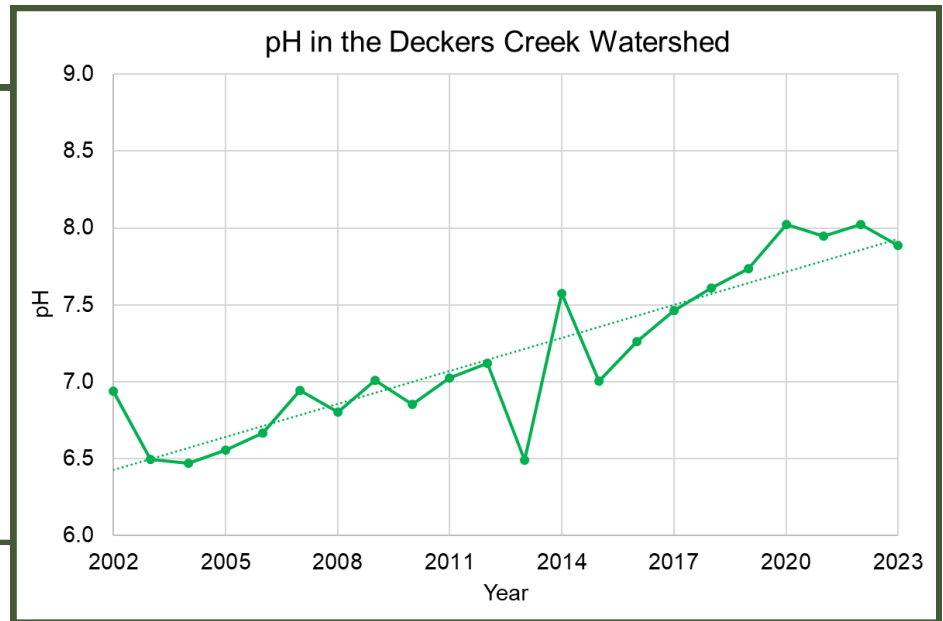


Photos: Maya, Noah, and Katie sampling for hellbender eDNA in the Deckers Creek Watershed.

The Clean Creek Program: 22 Year Review

Friends of Deckers Creek started the Clean Creek Program in 2002 to monitor the water quality and biological communities at 13 sites within our watershed. For this year's State of the Creek Report, we are looking back on the past 22 years of data to see how the average pH and metal concentrations in our watershed have changed.

Over the past few years, our 13 sample sites have consistently tested within the EPA's recommended pH range of 6.5 to 9. When our organization first started the Clean Creek Program, it was common for multiple sites to test below 6.5 on the pH scale.



On average, concentrations of iron and aluminum across our 13 samples sites have dropped significantly over the past 22 years. These decreases, along with the increases in pH, are largely due to the tireless work that FODC staff, volunteers, and partners put in to build, operate, and maintain AMD treatment sites.

Our findings show that the Deckers Creek Watershed has significantly improved over the past 22 years, and even greater improvements are on the horizon. In the spring of 2024, an AMD treatment site targeting the Richard Mine was brought online through a collaborative effort between the WVDEP, the Natural Resources Conservation Service, and Northeast Natural Energy. The Richard Mine has historically been the largest source of AMD in the Deckers Creek Watershed, sending hundreds of thousands of pounds of AMD into the creek each year. This treatment site will decrease metal concentrations, raise the pH, and allow life to return to the lower stretches of Deckers Creek. Our organization looks forward to experiencing and sharing the positive changes that will occur from this monumental achievement.

PLEASE AND THANK YOU: A Few Words From a Former FODC Board Member

by Bill Pennington

My 6-year term as a FODC Board member commenced on October 4, 2017. In that time, I spent about 4 years as Board Treasurer. I then had the privilege to serve as Board President for my last year on the Board. I said “goodbye” to my fellow Board members and the FODC staff at the September, 2023, bi-monthly Board meeting. I now say “THANK YOU” for allowing me to serve not only as a member of the FODC Board, but in the capacity as a Board Officer for most of my 6-year term.

My “PLEASE” is for other members of the community to consider stepping up and becoming candidates for membership with the FODC Board. Six years passes unbelievably quickly. In my term as a Board member, I saw the composition of the Board change completely from those members who were on the Board in 2017 to those who were around the table in late 2023. Also during my term as a Board member, FODC experienced numerous changes in staff employment. It was my utmost pleasure to be acquainted with each and every member of the FODC Board and staff that served or was employed during my 6 year term.

Going into the future, FODC will continue to experience turnover in both staff and Board membership. The only way FODC can continue to be a sustainable organization is for others to be willing to come in and become involved as Board members.

It’s so easy. Attend any one of the fun FODC fundraising events or volunteer activities and introduce yourself. Contact a member of the staff to find out when the next Board meeting is and attend as a guest. Get acquainted with any staff or member of the Board and just make a new friend. Look for information on the website or the FODC Facebook page and come meet us. Don’t feel like you need to have any kind of knowledge or skill to serve; everyone has something to contribute.

I am gratified to know that I was able to see FODC operate and grow during my term as a Board member. I only want to know that the organization will continue to thrive after my own term has ended.

Interested in joining the FODC Board?




Our board members assist our organization with managing our internal affairs, developing programs and policies in line with our mission, volunteering at events, and more.

Visit deckerscreek.org/join-fodc or send us an email at info@deckerscreek.org to learn more.

Interested in volunteering with FODC?

Visit deckerscreek.org/volunteer to view our current volunteer opportunities.

Follow us on social media to be the first to hear when new opportunities arise.

 Friends of Deckers Creek   @fodc_wv

I'm a Friend of Deckers Creek!

Renew your membership online by visiting
deckerscreek.org/membership

Mail checks or cash to:
Friends of Deckers Creek
PO Box 877
Dellslow, WV 26531

\$_____ Crayfish (\$5 to \$49)
\$_____ Beaver (\$50 to \$199)
\$_____ Darter (\$200 to \$499)
\$_____ Belted Kingfisher (\$500+)

Name: _____

Address Line 1: _____

Address Line 2: _____

Phone: _____

Email: _____




Other Ways to Support FODC

Volunteering, in-kind donations, and being an advocate are all ways you can help build a healthier watershed and community.

Support while you shop by selecting Friends of Deckers Creek as your charity of choice through Kroger Community Rewards and Walmart Spark Good.



Follow us on social media to stay connected.

 Friends of Deckers Creek   @fodc_wv

Thank you for making our work possible!

Our board members, WVDEP, Stream Partners, Evan Hansen, Dr. Thomas H. Covey, Jr., Joan Gorham, Cynthia O'Brien, Marc D. Tanner & Rebecca Rogers, Dr. Darren Tanner, Earl Kennedy, Vicky Shears & Dan Doyle, Robert & Miriam Miller, Gordon Keyes, Carol & Ken Means, Jacqueline Mier, the Foraging Queens, Tiphani Davis, Katie Cooley, and all of our donors, volunteers, supporters, and friends of the creek!