

Protecting, preserving and restoring the Indian Creek and greater Youghiogheny River watersheds.



Summer 2014 *E. coli* Sampling in the Yough Watershed

Highlights:

- Too much news, not enough space! Visit mtwatershed.com/blog for more info on the proposed deep mine, water quality, and our shale gas work.
- We've hired a Community Advocate! Visit page 2 to learn more about Nick Kennedy.

In conjunction with our quarterly water quality monitoring in the Yough basin (which includes nine sites on the river and eight major tributaries), we are pleased to announce we've received funding for two related initiatives to sample for *E. coli* pollution in the watershed. These projects will take place during the Summer 2014 recreational season (May to September). The first will sample for *E. coli* in the Meadow Run watershed. We've seen troubling levels of *E. coli* in Meadow since commencing our quarterly sampling in 2012. Through this initiative, which was funded by the Laurel Foundation, we plan to sample throughout the Meadow Run watershed in an attempt to determine the source or sources of the pollution.

The second initiative involves sampling for *E. coli* in areas with high levels of contact recreation (swimming, wading, paddling). With assistance from our members and supporters, we plan to identify approximately 15 sites and sample them monthly from May to September, 2014. The data we gather will be available on the Waterkeeper Alliance Swim Guide (www.theswimguide.org) where it will be publically available in order to help watershed residents and

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MWA Receives Growing Greener Funds

MWA was recently awarded \$305,819.00 in Growing Greener Funding for rehabilitation of one of our mine discharge systems. Prior to the construction of the Anna & Steve Gdosky Indian Creek Restoration Project (treating the Kalp discharge), 184 million gallons of untreated mine water entered Indian Creek annually from this discharge. Homeowners had mine drainage in their yards and basements. This discharge was responsible for 38.5 tons of iron being deposited in Indian Creek each year. In 2005, the treatment system was constructed at a cost of over \$3.4 million. It was the first in Pennsylvania to use directional drilling to capture the discharge from a mine pool. Two boreholes were drilled to carry the discharge to the system.

In 2012 both boreholes collapsed causing the mine pool elevation to back up to its pre-construction level. Mine water began to discharge from the mine again, threatening area homes. Remediation efforts were started immediately as an accelerated response project through the Bureau of Abandoned Mine

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1414-B ICV Road
PO Box 408
Melcroft PA 15462
(724) 455 4200
www.mtwatershed.com

Staff

Beverly Braverman

Executive Director
mwa@mtwatershed.com

Krissy Kasserman

Youghiogheny **RIVERKEEPER**®
krissy@mtwatershed.com

Charlotte Shetler

Office Administrator
charlotte@mtwatershed.com

Carla Ruddock

Field Technician
carla@mtwatershed.com

Kathryn Hilton

Community Organizer
kathryn@mtwatershed.com

Nick Kennedy

Community Advocate
nick@mtwatershed.com

Stephanie Novak

AmeriCorps Volunteer
stephanie@mtwatershed.com

Deb Simko

Project Coordinator

Meet Nick

Nick Kennedy is our newest staff member, joining MWA as our Community Advocate. Nick was born and raised in Greensburg, PA. He attended the University of Pittsburgh where he earned a Bachelor of Arts in Political Science, graduating *summa cum laude* in 2006. Nick then pursued his passion for the law by attending the University of Pittsburgh's School of Law, graduating in 2009. While in law school, Nick served as a mentor for new law students and was a member of the Law Review and the Public Legal Income Sharing Foundation. He was also granted membership to the Order of the Coif, an honor society open to individuals finishing in the top ten percent of their class.

Following law school, Nick accepted an offer to work in New York City for the international law firm Cadwalader, Wickersham & Taft. At Cadwalader, Nick's primary legal focus was litigation related to mortgage-backed securities. Although he enjoyed the challenge and fast-paced lifestyle of a major New York firm, Nick wanted to pursue a career with

more of a public focus. He left Cadwalader in 2010 and began working at The Legal Aid Society as a volunteer attorney. In 2011, Legal Aid offered Nick the position of Foreclosure Staff Attorney in its Queens Neighborhood Office. In that role, Nick was responsible for litigating and pursuing home-saving solutions on behalf of low-income families in Queens. He also took legal action against individuals suspected of committing fraud related to lending and conducted community outreach, among other activities.

After living in New York City for over four years, Nick and his wife Lindsey were ready to return home to their roots. In making the move back, Nick joined MWA to continue his passion for public advocacy, while focusing on the most important issues affecting the Western PA region. In his spare time, Nick loves to travel and explore different cultures. He is an avid scuba diver, and enjoys hunting and hiking, among a number of other outdoor activities.

Nick can be reached at nick@mtwatershed.com or 724/455-4200, ext. 6#.

Summer 2014 Field Internship Available

Do you want to work for clean water in the beautiful Laurel Highlands this summer? Apply for our summer internship! Duties include water sampling in the Indian Creek and Yough River watersheds, operations and maintenance of our passive mine

drainage treatment systems, and community outreach. The internship is from May through August 2014. For more information or application instructions please visit our website or contact Krissy. College credit may be available upon request.

Sustainable Economic Development: Indian Creek Valley Trail

There are now about nine miles of completed and five miles of partly finished trail. It is open year round for activities including walking, biking, cross country skiing and snowshoeing. Upon completion, the trail will run from Jones Mill near Route 31 downstream to the Youghiogheny River, where ultimately we envision a crossing so the Indian Creek Valley Trail can serve as a spur of the Great Allegheny Passage (GAP). When complete, this will open the Indian Creek Valley (and the amenities it contains, including Roaring Run Resort and Seven Springs Mountain Resort, among others) to the GAP and its ultimate destinations of Pittsburgh, PA and Washington, DC.

We are excited to announce that all of the permits, engineering and environmental studies have been secured for the Jones Mill Bridge in Donegal. Now, we just need some funding. The cost of the project will be \$70,000, \$25,000 of which we have secured through grants. There will be 60 deckboards in the bridge that we are seeking sponsors for at \$250 per. Donors will be acknowledged with a plaque. We are also looking for larger donors for either the entire span or for both entrances.

The Indian Creek Valley Trail is in a prime location to become a significant tourist amenity. Hundreds of thousands of visitors cross the trail each year on their way to destinations

including Seven Springs, Hidden Valley, Laurel Hill & Kooser State Parks, and other great stops. We expect the trail to encourage these passers-through to linger, visit, pedal or walk on the trail, grab a bite to eat or a bottle of water, and explore all that the valley has to offer. Construction of the Indian Creek Valley Trail opens up the small towns and villages in the valley, the industrial history of the area as well as the efforts undertaken to restore past damage, and the spectacular Indian Creek gorge, an area of exceptional scenery and natural diversity. Spend some time on the Indian Creek Valley Trail— you'll be glad you did!

Marcellus Citizen Stewardship Project Evolves

In the last year our Marcellus Citizen Stewardship Project (MCSP) has evolved from primarily assessment trainings to working with active community groups in Fayette and Westmoreland Counties. These groups are interested in participating in public discourse on natural gas industrialization and related infrastructure. With the rampant expansion of this industry, we are narrowing our focus and working mainly in the Youghiogheny watershed but also continue to organize a network of community leaders throughout Pennsylvania.

We are still holding trainings for volunteer water

quality monitoring streams near well sites and are preparing to pilot a pipeline monitoring training in Beaver County. We're also holding an informational meeting on shale gas impacts on February 20, 2014 in Uniontown, PA in conjunction with the Alliance for Aquatic Resources Monitoring (ALLARM).

We have been meeting with communities in order to provide guidance regarding how citizens can supply the Department of Environmental Protection or other regulatory agencies with feedback. We believe this approach will increase citizens' ability to provide meaningful comments on shale gas

industrialization projects. Increased numbers of citizen comments will cause regulatory agencies to take a more in-depth look at the impacts of intensified activities. Three areas where we are doing this now are around the expansion of a compressor station in Uniontown, proposed sub-surface leases for township parks in North Huntingdon and Murrysville, and for proposed changes to oil and gas regulations by the Environmental Quality Board (EQB). To request this kind of assistance in your community, or for more information about an upcoming training or meeting, please contact Kathryn.

Water Quality

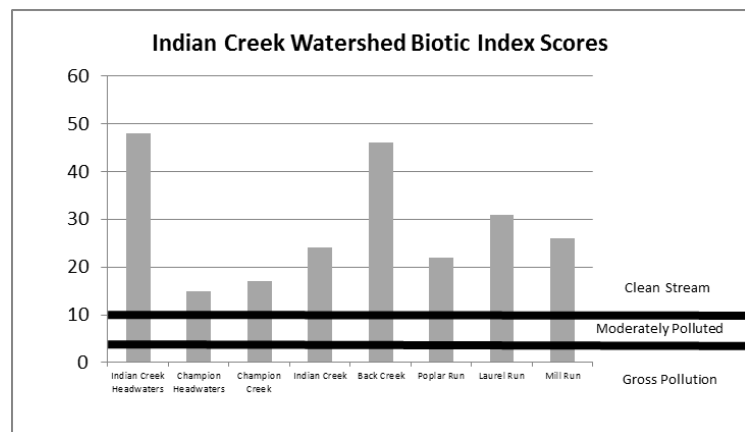
Over the past three years we have significantly increased our water quality monitoring in the Indian Creek & Yough watersheds. In Indian Creek, this work was originally aided by a Growing Greener grant to develop an Operation, Maintenance, and Replacement plan for our mine drainage treatment projects. In addition to the chemical water samples which have been collected quarterly at each of the treatment systems, MWA now also monitors the biological health of area waterways through the collection of macroinvertebrates.

Macroinvertebrates are the primary food source for many other aquatic species such as brook trout. The presence or absence of certain macroinvertebrates in a stream is an indicator of stream health, because different organisms have different habitat preference and pollution tolerance levels.

Because of this, macroinvertebrates are often referred to as “indicator species.” For example, higher populations of mayflies, stoneflies, and caddisflies are more desirable because these organisms are more sensitive to pollution as opposed to midges or crane flies that can tolerate high levels of pollution. The presence of more sensitive bugs indicates better water quality.

Based upon the results of our macroinvertebrate sampling, the health of streams within the

Indian Creek watershed is improving and many areas contain healthy macro populations (see graph below for an indication of the health of various points around the watershed— a higher score means better water quality). We are planning additional efforts to improve water quality and plan to continue monitoring in order to understand the impacts our mine drainage treatment projects are having on water quality over time. Stay tuned!



Growing Greener *(continued from page 1)*

Reclamation and Bureau of Conservation and Restoration. The boreholes were re-drilled, cased with stainless steel pipe, and the mine pool elevation was treated using caustic soda. This project cost over \$400,000. In June 2012, a Western Pennsylvania Coalition for Abandoned Mine Reclamation (WPCAMR) emergency response grant in the amount of \$2,810 was received in order to add additional clean-out pipes and to clean system pipes in the up-flow bed of the treatment system. An assessment of the system revealed that additional refurbishment work on the

treatment system as needed to restore it to optimal treatment efficiency. In fall 2013, MWA received another WPCAMR emergency response grant of up to \$100,000 to monitor and treat the discharge pending this work.

Growing Greener funding will support rehabilitation of the treatment system so that it can once again function as originally designed. MWA has taken on the responsibility of routine operation and maintenance activities at the site from DEP and has developed an Operation, Maintenance, and Replacement plan to guide these efforts. Routine maintenance

activities include three times weekly monitoring of the caustic soda addition, quarterly water sampling, system flushing, vegetation controls, measurement of mine pool elevation, and quarterly site inspections.

MWA intends to solicit requests for proposals from area contractors. In addition, it is our desire to utilize construction materials manufactured in the United States when economically feasible and applicable. The continued improvement of Indian Creek depends on proper functioning of this system.

Erosion & Sedimentation Violations on Curry Mine Site

We recently became aware of significant erosion and sedimentation issues on Amerikohl's Curry Mine site in Dunbar Township, Fayette County. For more information on the history of our opposition to this project, located less than 1000' from the high-quality portion of the Yough River and the Great Allegheny Passage, visit www.mtwatershed.com/blog/

Late last spring our Yough Riverkeeper filed a complaint with DEP regarding sediment-laden water running off the site. DEP inspection documents show timbering was occurring on the site at the time though coal extraction had not yet begun. According to the DEP, because this timbering was not related to the mining—despite it occurring within the boundaries of the permitted mine—they could provide no enforcement. We filed a complaint with the federal Office of Surface Mining, and they issued a ten-day notice (TDN) to DEP (a ten-day notice is the process through which OSM initiates oversight over issues on mining sites permitted by states with OSM-approved

programs— like Pennsylvania). Unfortunately, by the time OSM came out to conduct an inspection summer vegetation had grown in and the erosion had slowed or stopped. OSM vacated their notice.

Fast forward to December



Runoff from the Curry Mine site as seen from the Great Allegheny Passage.

2013. We once again began to receive complaints regarding a massive stream of sediment entering the Yough River near mile

79.5 on the Great Allegheny Passage. Our Yough Riverkeeper went out to investigate and take photographs. She filed a formal complaint with the conservation district, DEP, OSM & the Pennsylvania Fish and Boat Commission, who sent a Waterways Conservation Officer out to conduct an inspection. Apparently damaged erosion and sediment control structures from a timbering operation on the site were responsible for allowing the sediment-laden water to flow toward the river. Fish & Boat instructed the timber company to repair and improve the E&S structures. Erosion on the site has now slowed as a result of the improved structures. DEP maintains this is not a mining issue and that they have no jurisdiction. OSM has once again issued a ten-day notice to DEP, and DEP has requested a review of the notice. We are awaiting the results of the review. For color photographs, please visit www.mtwatershed.com/blog/

Summer 2014 *E. coli* Sampling in the Yough (continued from page 1)

visitors make informed decisions about where to safely recreate during the summer months.

Escherichia coli (commonly abbreviated *E. coli*) is a rod-shaped bacterium commonly found in the lower intestine of warm-blooded organisms including humans and animals. There are hundreds of strains of the bacterium *Escherichia coli*, however, one particular strain, O157:H7, is an emerging cause of

foodborne and waterborne illness. Beaches and other designated swimming locations are tested regularly, but swimmers in non-designated areas (swimming holes, locations along the river) swim at their own risk.

In order to suggest a site for sampling, please contact Krissy, and please visit www.theswimguide.org to learn more about area water quality..



More News on the Proposed Saltlick/Donegal Deep Mine

In considering the proposed deep mine, we thought it appropriate to reflect on recent issues caused by historic deep mines in our area.

In 2013 we had a collapse in the Melcroft No. 1 mine along Route 711. This collapse cost the Commonwealth over \$400,000 and overwhelmed our Kalp Treatment System, which now has to be refurbished at a cost of roughly \$305,000. Also, one of the underground discharges treated by our Sagamore Treatment System changed in quality and quantity likely due to an underground collapse. Some concerns about mining in the Indian Creek watershed arise out of the history of mining in this area, but these new problems at Kalp and Sagamore are a result of recent activity underground that could not be foreseen or predicted or forestalled, except to know that these issues are inevitable when mining takes place in an area as fractured and hydrologically variable as this watershed.

In our review of the pre-

application for the proposed Donegal/Saltlick deep mine (known as Rustic Ridge):

- The operator LCT is including two areas that were part of the DEP denied and EHB denied area proposed for mining in 1993.
- LCT's new and previous piezometer data, reviewed by several hydrogeologists, support the fact that discharges will occur.
- Hydrologic modeling clearly shows a downward gradient of the Kittanning aquifer zones toward and into the Melcroft No. 3 mine workings. It is likely there will be increased flow and new occurrences of mine discharges along Indian Creek.
- LCT's maps show they do not have a stream sample site for Champion Creek upstream of the proposed surface entry of the proposed mine. The only sample site upstream is on a tiny tributary along Thompson Road. Flows at this point are

always very low and not representative of Champion Creek.

- Another major issue is that their maps seem to indicate LCT intends to mine updip. Their map in response to the Deficiency Letter shows areas in the northwest part of their proposed mining operation where they would be mining updip. Since it is illegal to permit underground mines that mine updip, they cannot mine this area from where they state the portal entry would be.
- LCT uses too low a rainfall infiltration rate (1500 gpm) in their estimate. Even this underestimated amount, should it fall every day during the final stages of the mining operation, will keep Champion Creek in a constant flood stage, overflowing its banks along several reaches in the first few miles downstream.

For more information on the proposed deep mine visit www.mtwatershed.com/blog/ or contact Beverly.

MWA Takes Steps to Protect Stony Run

With the help of the University of Pittsburgh Environmental Law Clinic, we recently submitted a petition to change the designation of Stony Run, a picturesque Indian Creek tributary in Springfield Township, Fayette County, from cold water fishes (CWF) to Exceptional Value (EV). This higher level of designation could provide Stony

Run with additional protections should mining or other types of development occur within the watershed. Now that DEP has received our petition, it will be evaluated for completeness. DEP will then send out their own field staff to conduct an assessment of Stony Run, and if it is found to be of Exceptional Value, the petition will be submitted to the

Environmental Quality Board for consideration. Redesignation of streams is part of our Fishable Swimmable Waters initiative, through which we are committed to protecting the high-quality waters in the Indian Creek and greater Youghiogheny River watersheds while restoring water quality in areas that have been negatively impacted.

Our Laurel Landscape...

Deep Roots in the Laurel Highlands: American Ginseng

As part of our Laurel landscape, wild American Ginseng (*Panax quinquefolius*) has played a role in the cultural heritage and history of the Appalachian Mountains. Sang, as it is sometimes called, was once abundant in areas of the Conemaugh Gap area of the Laurel Ridge. Harvested in North America for over 250 years, the roots of American Ginseng have a mysterious legend of medicinal purposes in both the Native American and Chinese cultures, making it a valuable and sought-after species. Because of over-harvesting, the plant is now federally protected under CITES, the Convention on International Trade in Endangered Species of Wild Fauna and Flora. It is said to still exist in the Laurel Highlands, but can only be found by those lucky enough to know where to look.

Part of the mystery surrounding American Ginseng are the ginsenosides, a group of chemicals which are thought to give ginseng its medicinal properties. Native Americans used Ginseng for treating headaches, fever, indigestion, and infertility. This tradition may have scientific merit as recent studies have shown ginseng acts as an antioxidant in the body. It improves the immune system and helps to ward off infection and disease. According to the University of Maryland's Medical Center, American Ginseng

is useful in fighting diabetes, cancer, ADHD, and the common cold and flu. Ginseng comes in many forms including fresh or dried root and also as an extracted liquid. As with other medicines, always consult a doctor before using any Ginseng herbal product.



Photo of American Ginseng courtesy of United Plant Savers.

Because of its' medicinal properties, American Ginseng has been grown and harvested as a source of income for rural landowners and their families for many generations. American Ginseng has great cultural value to those living in the Appalachian Mountains. Their ability to continue to grow ginseng is continually threatened by loss of habitat, increased deer populations, over-harvesting, invasive species, and poaching.

Under strict guidelines, American Ginseng still may be

legally harvested in Pennsylvania from September 1st - November 30th. PA state law requires harvested plants to have at least 3 prongs with 5 leaflets on each prong and be gathered only when the berries are red. After harvesting, the seeds of the plant must be reburied at the same site to ensure sustainable harvesting. Unlike hunting where unless land is posted it is considered ok to hunt, collecting ginseng on private property without permission is illegal. Harvesting ginseng on state lands is also illegal in Pennsylvania. There are substantial penalties for violating these laws. The current demand for American Ginseng fuels the illegal harvesting that has existed since 1975 after ginseng's listing as federally protected under CITES.

Respecting the history and cultural value of ginseng is the only way to guarantee this revered plant will continue to flourish in our area. Ginseng is a slow growing sensitive plant, making it hard to grow commercially. It is known as the "plant that hides from man" since it grows deep within deciduous forests. With each year of growth, ginseng gains a new stem scar meaning older plants will have more intricate and longer roots and thus be more valuable. With a history as long and tangled as its roots, ginseng deserves its undisturbed place in the beautiful Laurel Highlands.

We are now able to accept gifts of stock or bonds. Please contact Beverly Braverman at mwa@mtwatershed.com or 724/455-4200 for more information.



PO Box 408/1414-B ICV Road
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724/455-4200

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Upcoming Events

April 7
Day of Giving
www.westmorelandgives.org

April 26
Clean Water Banquet & Silent
Auction

Date TBA
Annual Wildflower Walk

October 4
Fishing Derby & Duck Race

November 12
Annual Meeting & Potluck
Dinner

See www.mtwatershed.com
for more information.

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I would like to receive MWA's quarterly newsletter via email!

Please make checks payable to: Mountain Watershed Association
1414B Indian Creek Valley Rd., P.O. Box 408, Melcroft, PA 15462

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