

Email not displaying correctly? View it in your browser.

Butler County Stream Team December News - 2011



Volunteer Stream Monitoring in Southwest Ohio
Next Sampling Day - Tomorrow! - December 10th

Stormwater and BMPs no, not bumps ... Best Management Practices!

Wow, what a rainy fall, huh? After almost tripling the normal rainfall in April (11.3" this year, 4" avg), we have again broken rainfall records for southwest Ohio for November, more than doubling the norm of 3.3" (7.6" this year)! And daily records have already been broken for December - at the Dayton Int. Airport, rainfall of 1.9" was reported Tuesday, more than twice the record of 3/4" received in 1977. Again ... wow, what a wet fall!

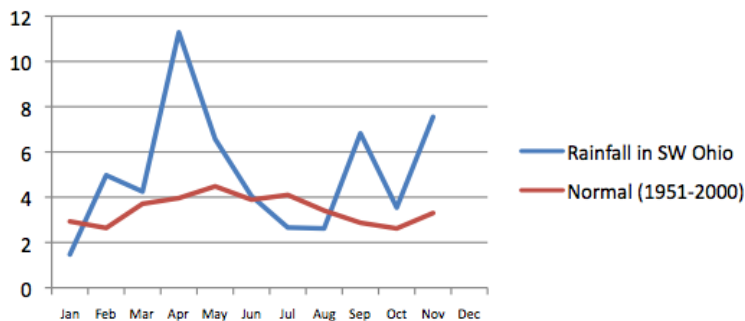


Fig. 1. Rainfall in inches. Data from ODNR Soil and Water Inventory.

For those of us interested in rivers and streams, though, all that rainfall has added implications. As says a Liberian proverb, **A little rain each day will fill the rivers to overflowing.** And that - along with what those overflowing banks are carrying - is what BMPs are all about.

So what are BMPs anyway?

The term "Best Management Practice" was first used in the Clean Water Act in 1972 (CWA), where it was tied closely to reducing pollutants in stormwater discharge (stormwater is just the water that runs off surfaces after a rainfall). BMPs are part of the CWA's Phase

Volunteer Spotlight

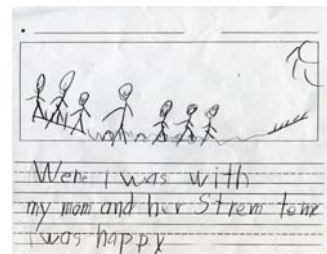
This month I couldn't resist introducing you to a few of our newest sampling volunteers - Suzi Zazycki's family.



After you see the wonderful book created about stream team sampling by Ben, age 6, you will understand why!

Ben is 6 and in 1st grade at Kramer Elementary in Oxford.

He loves hitting home runs, building with legos, writing stories, making crafts and playing in mud. And now I know he has another thing that he likes to do ...



Wow, I can't imagine a better endorsement than that!

Thanks Ben! To see the rest of Ben's book, check out

II Stormwater management requirements that every stormwater district must fulfill to get a discharge permit. [There are BMPs for:](#) 1) public education and 2) involvement, 3) eliminating illicit discharges, 4) construction and 5) post-construction practices, and 6) "good housekeeping" activities that organizations and businesses can do to keep pollutants out of runoff water. In recent decades improvements have been made in controlling pollution from municipal sewage and industrial outflows, so stormwater runoff has become a more important contributor to water quality. In fact, most of our pollutants now come from runoff from agricultural areas, lawns, and roads, not from industry.

Although many of these BMPs are implemented by agencies on your behalf, as Stream Team volunteers you can help the agencies do their work by keeping your eyes open. As you collect samples, do you see things that should be addressed? If so, please report them to any of us - you are our eyes in the field - and greatly multiply the efforts of those that are paid to be there.

BMP examples

So let's take a look at what BMPS really involve, using the 6 Phase II requirement categories as a guide.

Public Education - Stormwater runoff is **nonpoint source pollution** - that is, the pollutants don't come from a pipe, but from our yards, driveways, streets, and roofs.

Reducing that kind of pollution requires **everybody's** help. So, the CWA requires that stormwater districts inform and educate their residents on how their activities affect stormwater. Individual behaviors that may affect stormwater include:

- littering
- disposing of trash and recyclables
- disposing of pet waste
- applying lawn chemicals
- washing cars
- changing motor oil on impervious driveways
- disposing of leftover paint, household chemicals, or medicines

One of the ways Butler County educates folks is by labeling storm drains, so that people understand whatever they put in a drain goes straight to a creek.

Another thing is Stream Team ... at outreach events we talk to people about streams and why we should keep them clean. For more info ... click [here](#) or [here](#) or [here](#)

this [link](#).

But Ben is not the only Zazycki who collects water samples. He's joined by his brother Daryl, who is 7 and in 2nd grade at Kramer, his mom Suzi, who is one of the newest members of the IES crew, and his dad Daryl. Brother Daryl also loves to build with legos, but he enjoys playing sports and board games and solving math problems in his spare time. Suzi is IES's Outreach Coordinator, working with the Professional Service Projects, internship placement, and alumni relations. The family moved to Oxford in August, but Suzi is a Butler County resident of old, graduating from Miami in 1990 with a Bachelor's degree in Business and in 1992 with an M.En. Daryl senior works in UC's IT department.

Suzi has been a great asset to our Stream Team efforts. She's the mover and shaker behind the collection of 7 sites in Oxford that haven't been collected for a while, often corraling not only her own family but IES students as well. So thanks Suzi, Ben, Daryl and Daryl - we're glad to have you on board!

NEW - LENDING LIBRARY in Stream Team Lab

Bob has had another wonderful idea - to build up a lending library that all volunteers with Stream Team can borrow from and contribute to. Another way to get people to come up to the lab, huh, Bob??

No, seriously, we all have lots of books that we would

Public Involvement - Public involvement can take many forms, but you may have already guessed that one goal of the Stream Team is



to get people involved. You can be involved by sampling water, working in lab, participating in our special events like canoeing on the Great Miami River, or even reading our newsletter! The basic idea is that the more "connected" people feel with their waterways, the more they are likely to behave as if streams matter, such as on the behaviors bulleted above. One more thought - Stream Team right now only involves chemical water testing, along with various outreach, training and fun events. But we would love to expand and start doing other types of monitoring (like macroinvertebrates and habitat), stream clean-ups, adopting a stream reach, etc. So if you are interested in any of these activities, PLEASE let us know! For more info ... click [here](#) or [here](#)



Illicit Discharge Detection and Elimination - Illicit



discharges are any runoff that is NOT stormwater that goes into a storm drain system. Some examples might include runoff from vehicles washed on impervious surfaces or septic system failure (see USEPA pictures left and right). Believe it or not, many people still think that "out of sight" means the unwanted substance (like used oil) is gone. Bob has often seen evidence of oil being dumped down storm drains, under the obvious belief that it is going to the sewage treatment center and will be taken care of. Just FYI - what goes into storm drains goes directly to our area waterways, it does NOT stop at a treatment facility. Other illicit discharges include litter, trash or yard wastes dumped in stream beds or along roads, and fertilizer not used by your lawn or crops. For more info ... click [here](#) or [here](#)



Construction - Construction sites are notorious contributors of sediment to waterways; one acre of bare soil can lose 100 lbs of dirt in a single rainfall event, and

love to share with someone who has similar interests. So we thought this might be a way to share them with people we know like streams!

Beth and Marion are creating a space in lab, so the first books will be in the lab on Saturday. The titles of those first books are below, and soon we will have a link to each book on our web site that will show you a picture and give a brief synopsis - think Amazon or Barnes and Noble ...

In addition, if you have books, DVDs or other things - especially about water - that you would like to contribute, feel free to bring them along anytime. Or, if there are particular books you would like us to buy, let us know and once a year or so we can add a few to our collection.

Here's our beginning list:

- A Guide to Common Freshwater Invertebrates of North America
- A Guide to Ohio Streams
- An Introduction to the World's Oceans
- Bugs of the Underworld: a fly fisher's guide to the natural history of aquatic insects (DVD - available on request)
- Exploring the World Ocean
- Fostering Sustainable Behavior: An introduction to community-based social marketing
- Guide to Aquatic Insects & Crustaceans

7 to 1000 tons per year! Because of the potential, construction sites over 1 acre in size are required to have erosion controls in place. These may include silt [fences](#), straw bales or sand bags, planting of cover vegetation if soils will be bare

for long, and proper practices for disposal of wastes. In



addition, contractors must be trained in implementation of these practices and sites must be planned and inspected to be sure erosion controls are properly placed, since the best measures won't work if they are [not well done](#) (see USEPA

[Subscribe to List](#)

[View Past Issues](#)

[RSS](#)

[translate](#)



+1



Like

Com

Post Construction - Post construction control of stormwater is an area where both developers and individual home or business owners may have equal impact. Storm water is an issue after development has occurred because of the increase in impervious surfaces - that is, surfaces that water runs off of instead of soaking into. In the last 2 decades the rate of development has been twice the rate of population growth. Eastern Butler County is one of the most rapidly developing areas in the US!

The [list of post construction BMPs](#) is long, including both structural and nonstructural practices. The main objective though, is to collect, store and infiltrate runoff before it can affect downstream waterways. Structural practices range in scope from zoning ordinances that allow eliminating curbs and gutters and narrower streets, to construction of retention basins or wetlands, to reducing the area of impervious surface on single lots. Individuals can help by adopting and acting on the goals "[Slow it down, Spread it out, Soak it in](#)". They may use rain barrels or cisterns to collect rain, build rain gardens at appropriate places to allow runoff from roofs and driveways to sink into the ground ([picture at left](#)), or leave vegetated riparian buffers for several yards along even small streams (such as the [grassed waterways](#) you see in crop fields). The group of structures and practices to control post constructin runoff are

- Introductory Oceanography
- Life in the Soil: A guide for naturalists and gardeners
- Marine Ecology
- Oceanography
- Ohio Vernal Pools: Diamonds in the Rough (DVD - available on request)
- Pond and Brook: A guide to nature in freshwater environments
- River of Words
- Swamp and Bog: Trees, shrubs, and wildflowers of eastern freshwater wetlands
- The Colorado: A river at risk
- The Evolution of North

- The Mill Creek: An Unnatural History of an Urban Stream
- Watersheds: A Practical Handbook for Healthy Water

[Volunteer Spotlight](#)

This month I couldn't resist introducing you to a few of our newest sampling volunteers - Suzi Zazycki's family.



After you see the wonderful book created about stream team sampling by Ben, age 6, you will understand why!

Ben is 6 and in 1st grade at Kramer Elementary in Oxford. He loves hitting home runs, building with legos, writing stories, making crafts and



collectively called **low impact development (LID)** practices. For more info, you'll have to type that into your search engine - there is just too much out there to put all the links here! For starters, tho, check Butler Co. Storm Water District [resources](#).

Pollution

Prevention/Good

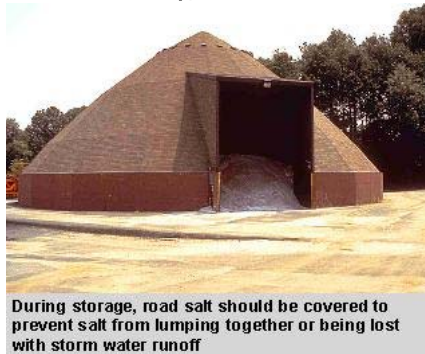
Housekeeping

- These BMPs control how waste is managed, spills are contained and pollution is decreased through



everyday practices in municipal buildings. It may involve signs that tell employees where to wash vehicles (where the drains go to sanitary sewers, not storm sewers), the use of less

toxic chemicals for cleaning, or landscaping to let runoff from impervious surfaces to be absorbed. One thing you may have noticed lately is the storage of road salt inside buildings, rather than out in the open. The USEPA hopes the good examples set by government agencies will spread through employees to their families and communities. For more info click [here](#).



So, as you drive around the county or just as you live every day, keep your eyes open and brains working to see how you can help clean up our waterways. There is so much information out there - the links above are only a fraction! So if you want to learn more, jump on the web sometime or let one of us at Stream Team know of your interest and we'll help you find what you're looking for. Remember that only by working together - controlling our own actions and making sure agencies appointed to regulate stormwater pollution can do their job - can we keep YOUR rivers and streams clean.

playing in mud. And now I know he has another thing that he likes to do ...

Wow, I can't imagine a better endorsement than that!

Thanks Ben! To see the rest of Ben's book, check out this [link](#).

But Ben is not the only Zazycki who collects water samples. He's joined by his brother Daryl, who is 7 and in 2nd grade at Kramer, his mom Suzi, who is one of the newest members of the IES crew, and his dad Daryl. Brother Daryl also loves to build with legos, but he enjoys playing sports and board games and solving math problems in his spare time. Suzi is IES's Outreach Coordinator, working with the Professional Service Projects, internship placement, and alumni relations. The family moved to Oxford in August, but Suzi is a Butler County resident of old, graduating from Miami in 1990 with a Bachelor's degree in Business and in 1992 with an M.En. Daryl senior works in UC's IT department.

Suzi has been a great asset to our Stream Team efforts.

She's the mover and shaker behind the collection of 7 sites in Oxford that haven't been collected for a while, often corralling not only her own family but IES students as well. So thanks Suzi, Ben, Daryl and Daryl - we're glad to have you on board!

Creativity Corner ...

**Sit by a river.
Find peace and meaning
In the rhythm
Of the lifeblood of the
Earth**



Crisis Spot

As you are out sampling or just out for a walk along the waterways and see something wrong, email us. We always want to hear from our volunteers and especially if there is a problem that can be corrected.

You are our eyes in the field, the first line of defense for streams in Butler County when there is a problem. Once the problems have been reported to us, we can pass it along to the appropriate agencies.

Thanks again for all you do for Butler County Stream Team!

Crisis Spot emails can be sent to Donna McCollum at mccollds@muohio.edu.

Author Unknown



The mark of a successful man is one that has spent an entire day on the bank of a river without feeling guilty about it.

Chinese Philosopher

Here's a great quote that applies to nonpoint source pollution - the pollution that comes from everywhere. We all contribute because ...

Rain does not fall on one roof alone.

African proverb, Cameroon

Care to contribute?

Do you have a favorite poem, picture or article you'd like to pass along to our fellow volunteers? Do you write poetry, stories, or articles or create pictures - even better!

To contribute to our next Creativity Corner, email Donna McCollum at mccollds@muohio.edu

Mark Your Calendars!

December Sampling Day -
Saturday, December 10th

For comments, concerns, or suggestions, please contact us at mccollds@muohio.edu

Butler County Stream Team Monthly Newsletter

Unsubscribe from this list.

Our mailing address is: 102 Boyd Hall, Institute of Environmental Sciences, Miami University, Oxford, OH 45056

Phone: 513-529-5811
Fax: 513-529-5814

12/10/11

Stream Team Newsletter

E-mail: ies@muohio.edu / Website: www.butlercountystreamteam.org
Copyright (C) 2010 Butler County Stream Team All rights reserved.

[Forward this email to a friend](#)
[Update your profile](#)

