Storwater News... SUMMER EDITION 2017

Silver Creek Watershed

Silver Creek Watershed is located in northern Boone County and has a drainage area of roughly 85 square km. Its major land cover consists of deciduous forest (31.64%) ,Pasture/Hay (26.82%), Cultivated Crops (15.68%), Developed, Open Space (4.03%),Developed, Low Intensity (1.52%), Woody Wetlands (1.12%).

Approximately 73 percent of the soil consists of very slow infiltration types. This is important to because it indicates that rainfall and stormwater, especially in large concentration flows directly to the waterways and with an increase of carrying surface pollution directly to the waterways.

This watershed begins with Grindstone and Kelley Branch creeks merging and joining into the Perche Creek system at the area of E Hwy 124.





The Pinnacles

About 250 million years ago Boone County was covered by a shallow sea. This sea teemed with life and the fossilized remains of these ancient sea creatures are preserved in the Burlington limestone bedrock that composes the "Pinnacles" rock formations here. Through millennia Rocky Fork and Silver Fork Creeks have down cut through this bedrock creating the fascinating rock formations we see here today. Look for soaring turkey vultures above and cricket frogs along the creek below on summer days.

This natural area is within Pinnacles Park. From the intersection of Interstate 70 and Highway 63 in Columbia, travel north on Highway 63 for 12 miles and turn right (east)

"A watershed is that area of land, bounded hydrologic system within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community." -John Wesley Powell

Stormwater News...

The Boone County Stormwater team not only works on county projects but collaborates with other organizations sharing our common goal: CLEAN WATER for our citizens. One such organization is the Lakes of Missouri Volunteer Program (LMVP). Currently, we assist them with collecting and processing water samples from three lakes in Boone County: Lick Creek Lake which is located in Lick Creek Conservation area East of Harrisburg, Tri City Lake just west of Centralia, and Stephens Lake in Columbia.

About the LMVP:

The LMVP was created in 1992 and began with four lakes in the Kansas City area. Since then about 200 volunteers have participated and water samples have been collected on over 50 different lakes around the state. Many lakes have several sample sites. Table Rock Lake, for example, currently has 18 sample sites.

The goals of the LMVP are: 1) to determine the current water quality based on productivity or trophic state of Missouri's lakes, 2) to monitor for changes in water quality over time, and 3) to educate the public about lake ecology

Measuring Water Quality

The aspect of water quality that most interests the LMVP is lake productivity. We gauge productivity by measuring the amount of algae suspended in lake water. Algae are small plants that provide food and oxygen for fish and other aquatic life. While some algae are essential for a healthy lake, too much can have a negative impact on recreational uses and aquatic life. The LMVP also measures the amount of nitrogen and phosphorus in the lake. These two nutrients act as fertilizers, promoting algal growth. In some of our lakes, inorganic solids such as soil particles give the water a brownish color. The LMVP measures the amount of inorganic suspended solids in lakes where it might influence water clarity. All volunteers also take Secchi transparency readings. This is done with a Secchi disk, an eight-inch diameter black and white disk that is lowered into the lake until it disappears, thus providing a measure of water clarity. Lakes in our program have a wide range of Secchi values from less than 10 inches to over 16 feet.



Sample Analysis

The water samples are analyzed at the University of Missouri-Columbia, Department of Fisheries and Wildlife limnology laboratory. An annual data report is compiled containing the results of the data from all of the public lakes, an educational section about lake ecology and water quality issues, and copies of the newsletter, The Water Line. This report is sent to all interested parties including the volunteers, government agencies and lake associations. You can find this information at :

http://www.lmvp.org/publications.htm







Storwater News... SUMMER EDITION 2017

BUSH HONEY SUCKLE!!!

www.mohoneysuckleproject.com

Something is attacking our forests. An invasive plant is rapidly taking over almost every forest around you. An invasive plant or animal is an organism that was either purposefully or accidentally brought into an ecosystem. Invasive organisms are dangerous because they compete with native organisms for the same resources needed for survival.

The Problem

The invasive plant causing us big problems in our forests is the bush honeysuckle. Bush honeysuckles are not from the United States. They were brought over from Asia several decades ago for landscaping our yards While it seemed like a perfect plant to place in your yard, they are now causing big problems for us.

It turns out birds love the bush honeysuckle berries even though they are not all that nutritious. The birds carry the berries from the landscaped yards and drop the seeds onto native forests, prairies, and other yards. These seeds grow very easily in many conditions. Once the new plants are established and producing seeds, more birds spread more seeds and the problem gets worse and worse.

These invasive plants grow very thick on the bottom of the forest floor, leaving little room for native plants to grow. To make matters worse, the bush honeysuckle is the first plant to leaf out in the spring and the last plant to lose its leaves in the fall so that makes it even harder for any other plant to ever catch any of the sun's energy they need to grow. Therefore as older trees die, they may not have as many replacements. This could change our forests into more brush than trees.

The Solution

This story is not all bad because there is a solution. Bush honeysuckle plants are easily identified and therefore can be targeted for removal. Many different



program created by the Science Teachers of Missouri to remove these invasive plants. The goal is to remove at least a million of these invasive plants. Because the plants spread rapidly from the berries they produce, the goal is to remove as many plants as possible before new berries form in the fall.

Removal Instructions

- Bush honeysuckle have shallow roots so the small plants can easily be pulled from the ground.
- Larger plants must be cut and then an adult must treat the stump with a herbicide. If not treated, the plant quickly comes back.
- In early spring or fall, the bush honeysuckle is the only plant with green leaves. During this period of time an adult can spray the leaves with herbicide and the plant will die. Because no other plants have leaves yet, only the honeysuckle will die.

Make a Difference!

A special website has been set up at

www.mohoneysuckleproject.com where you can learn to identify and remove these invasive plants. You can even log how many plants you remove to help the goal of removing a million of these plants from Missouri. This is your chance to make a difference in your community and ecosystem. Go out there and take your forests back!

