SKWC NEWSLETTER

SAW KILL WATERSHED COMMUNITY

Issue 5: April 29th, 2020

Protecting the Saw Kill watershed and its ecological, recreational, and historic resources through hands-on science, education, and advocacy.

Lindsey Drew

A NOTE FROM: SKWC LEADERSHIP TEAM

We are very grateful for the the positive feedback we have received on the SKWC Newsletter. It gives us joy to be able to support our community, even in this very small way, at a time like this.

We kicked off the newsletter as an initial response to our inability to connect with the community face to face , while still wanting to be able to share with all of you. Although we have managed to produce these newsletters every week, we now realize that social distancing and limiting group gatherings may continue into the foreseeable future. We have decided to transition to releasing the newsletter twice a month so we can continue working on other projects that remain a priority to the Saw Kill Watershed Community.

Although we miss connecting with you during our monthly meetings and water samplings, we hope that you are staying well and finding ways to connect with your environment and community wherever that may be.

We always welcome your input and ideas.

Please don't hesitate to reach out to us at **sawkillwatershedcommunity@gmail.com** or fill out **this form** to give us feedback and information on the status of the Saw Kill watershed.

Follow the Covid-19 Waterblog to stay informed on up-to-date research on Covid-19's presence in wastewater.

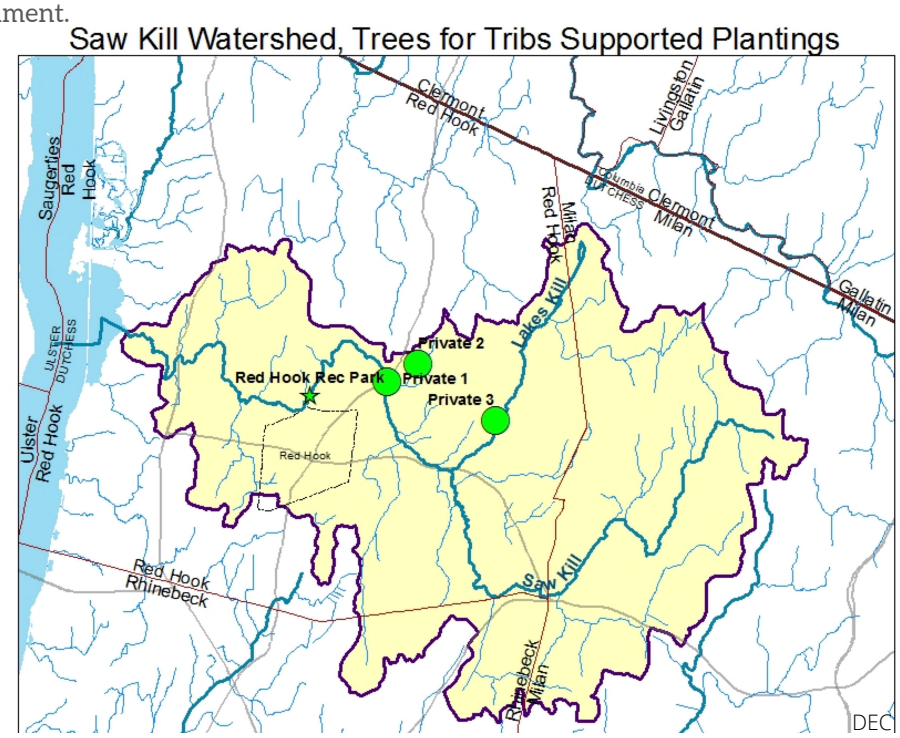
TREES FOR TRIBS IN THE SAW KILL

Karen Raskin, Saw Kill Watershed Community Leadership Team

As a recent transplant to Milan, I've enjoyed meandering bike and horseback rides through the back roads, peering through leafless trees to catch glimpses of the tributaries feeding the Saw Kill and Roeliff Jansen Kill. So much escaped my notice when I arrived last year in May, when the leaves obscured the views, or when it was too cold to ride in the winter and I breezed past in a car with the heater blasting! As it warms and I'm outside more, I see the small dams and spillways, the ponds made by both beavers and humans, the remnants of homes and relics of water conveyances, and I've taken notice of the presence or absence of some kind of riparian buffer.

A large percentage of the land adjacent to the Saw Kill and its tributaries is private property. While state and local policies prevent egregious pollution of these waterways, a laissez-faire approach allows some landowners to pursue their misguided ideals of manicured lawns right down to the water's edge. I've also seen the effects of intensive grazing and the subsequent loads of nutrients into the waterways.

The DEC works with public entities and private landowners to enhance riparian buffers and cover and reduce erosion through the popular Trees for Tribs program. The program, which began in 2007, provides free native trees and shrubs for qualified grant applicants and helps with planting. Since 2009, the program has planted six sites (three public access and three on private land) within the Saw Kill watershed. The result is nearly 700 more native trees and shrubs in our watershed, providing sediment and erosion control, water filtration, enhanced stability of streambanks, habitat enhancement, and improved flood resiliency. Another benefit is the community bonding that comes from a tree planting day as volunteers from all ages and walks of life work together to improve our environment.



Some may wonder why private landowners are given public funds and free labor when a "no trespassing" sign prevents the public from access. The answer lies in the term, "ecosystem services," and the phrase, "we all live downstream." Ecosystem services provide valuable environmental benefits such as clean air, clean water, flood control, erosion control, carbon sequestration, natural cooling, drought mitigation, aquifer recharge, and a steady source of fresh oxygen from plant photosynthesis. Because we all live downstream, these benefits are available to us all, regardless of access, and are arguably more cost efficient than large-scale infrastructure projects, such as a water filtration plant or engineered flood control. My research with typically conservative ranching families in northern California showed that while most bristled at the idea of a one-size-fits-all policy approach with environmental issues, they happily came to the table for project-based stewardship programs. Finding ways to inform and support landowners and municipalities about the benefits of tree planting and riparian buffers can pay dividends to the public in the form of ecosystem services and community resilience, and may provide a carrot rather than a stick to bring reluctant landowners on board.

The SKWC hopes that you'll be on the lookout for riparian planting opportunities when they arrive, and speak to your friends and neighbors about the benefits of riparian buffers and the Trees for Tribs program. Together, we can build relationships with our neighbors upstream and downstream, while providing better habitat, cleaner water, and flood control.

NATURE'S BEST HOPE: IN YOUR BACKYARD

Karen Schneller-McDonald, Chair, Saw Kill Watershed Community

Healthy watersheds depend on healthy ecosystems and a diversity of species. Recent studies reveal alarming trends in loss of that diversity, specifically the 30 percent loss of birds since 1970, and a 25 percent loss in insects over the last 30 years. Preserves and parks alone are not enough to protect these species; many of them require connected habitat and corridors throughout the landscape- including the landscape that surrounds the places where we live. Insects that power ecosystem food webs depend on native plants. Birds and other wildlife depend on the insects for food.

So, what can we do?

Nature's Best Hope: A New Approach to Conservation that Starts in Your Yard, by renowned entomologist Douglas Tallamy, is an excellent guide and source of practical information about increasing the habitat value of our yards, gardens, and public spaces. Some key points from the book follow.

Native plant species differ in how well they support wildlife diversity. While native plants support pollinators and food webs far better than introduced ornamental plants, some native species are key to maintaining ecosystems. These "keystone" species, have a disproportionately large effect on the abundance and diversity of other species in an ecosystem. In general, a landscape without keystone plants supports 70 to 75 percent fewer species than a landscape with keystone species, even if the landscape that lacks keystone species contains 95 percent of the native plants common to the region.

For example, a few plants host most of the butterfly and moth caterpillars in our region. Since most breeding birds rear their young on insects, and the majority of these insects are caterpillars or moths, keystone plants are essential for maintaining bird populations. In fact, caterpillars are so important that many birds may not be able to breed in habitats that don't contain enough of them. Among our most valuable local keystone species are native oaks which host over 550 species of caterpillars. Native oaks, cherries, willows, birches, cottonwoods and elms are top woody producers; other essential species include goldenrods, asters, and sunflowers. You can find the plant species with the highest habitat values online on the Native plant finder app from the National Wildlife Federation. Enter your zip code, select Native Plants, then species. For example, if you select goldenrod, you'll find information about the 138 species of butterflies and moths that use goldenrod as a host plant, along with identification photos.

Nature's Best Hope supplies recommendations for what we can do, and the supporting details that enable us to follow through. These include:

1. Protect habitat for all insect life cycle stages. Insects have habitat needs we don't often hear about; providing for these needs is as important for their survival as planting the right native host plants. Most caterpillars leave the host plant to pupate. One study shows some 94 percent of oak-using caterpillars fall to the ground when fully grown, where they either burrow into the soil to pupate underground or spin a cocoon in the leaf litter under the tree. Other caterpillars leave their host plants and crawl off to other structures or plants to pupate, often yards from the host plant. Most native bees nest and overwinter singly in the ground or within soft wood or pithy plant stems (goldenrod, blackberry, native hydrangea) and other small protected spaces. When we clean up our yards, it's important to leave some of the old stems and occasional dead branches for overwintering bees—they can't nest or overwinter in our yards unless we provide what they need.

2. Shrink the size of lawn, which provides little or no habitat value

3. Remove invasive plant species

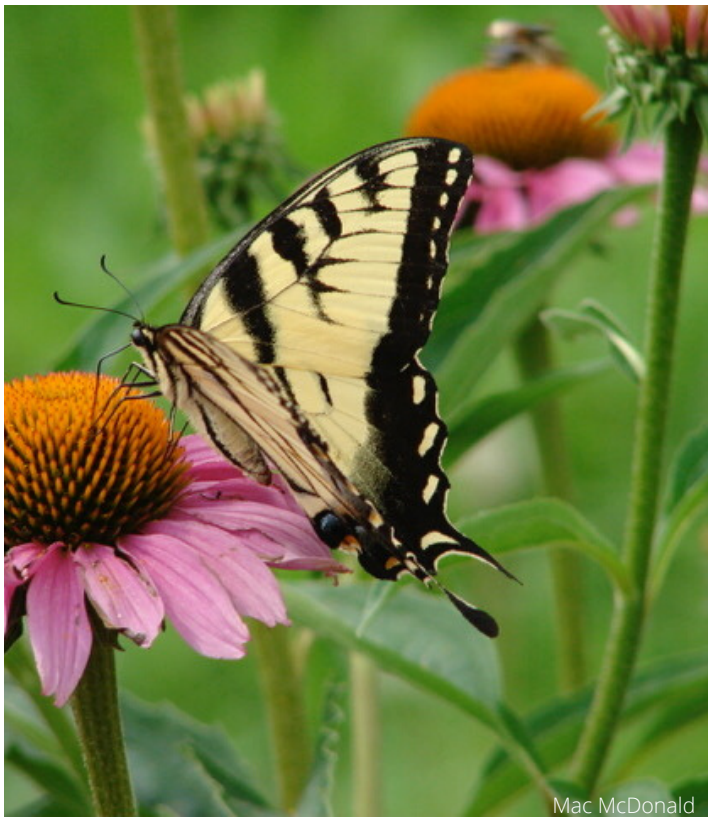
4. Plant native keystone species, and increase the abundance and diversity of native plantings in addition to keystone species

5. Network with neighbors; habitat areas are more successful when connected to other habitat areas. Educate your neighborhood or homeowners association and town to encourage these practices, in public spaces as well as around homes.

6. Avoid commercial pesticides, herbicides, and fertilizers whenever possible.

Take a look at *Nature's Best Hope* (as well as *Bringing Nature Home*, also by Tallamy), and learn more about how you can make a difference for wildlife habitat and healthy ecosystems. As we enjoy the start of spring, clean up our yards and think about gardens, it's a good time to review the value of native plants in our communities.

We'll be returning to these recommendations in future as we investigate how to improve the watershed's ecological value.


Mac McDonald


Mac McDonald


Karen Schneller-McDonald

AN UPDATE ON THE SAW KILL REPORT CARD PROJECT

Marco Spodek, Saw Kill Watershed Leadership Team

A quick update for those curious about the status of the Saw Kill report card project that was announced in last week's newsletter; research and data-mining are underway! We have decided to add another two parameters to the Habitat category of the report, Forest Cover and Vegetated Buffer area, so we now have three parameters per category. The SKWC will be evaluating the condition of the Saw Kill Watershed based on the following:

Water Quality: Fecal Bacteria Counts, Salinity, and Nutrients (Nitrogen & Phosphorus)
Aquatic Species: Native Brook Trout, American Eels, Benthic Macroinvertebrates
Habitat: Wetland Cover, Forest Cover, and Vegetated Buffer Area

Acquiring quality information on these parameters, including how they have changed over time, is a process, so we encourage you to bear with us and stay tuned through the following weeks as we work on assessing the Saw Kill and its watershed in a comprehensive manner. Looking forward to sharing results with you all soon!