THE WATER ISSUE
SYCAMORE LAND TRUST // FALL 2018

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This simple statement holds so much meaning. Forests and streams are more than just habitat for plants and animals. They can be places of nourishment, sanctuary, healing, history, and growth. Human life depends on healthy woods, from tree huggers to city slickers.

An integral part of southern Indiana’s natural landscape is its water. We talk a lot about forests, land, and native species, but none of these would survive without the lakes, streams, wetlands, ponds, and creeks that flow through this hilly environment. Fifty percent of the endangered or threatened species in the U.S. depend on rivers and streams to exist (conservationtools.org).

We’ve devoted this issue of The Twig to water because water quality is so crucial to public health and recreation, the survival of ecosystems, and the future of this planet. Thanks to the support of our members, Sycamore is working diligently to protect water in southern Indiana and beyond, because the actions we take here ripple out far beyond our borders.

Read on to learn more about our unique waterscape, threats to water quality, and what we’re doing to make a real difference. See page 15 for tips on how you can help keep Indiana’s water cleaner.

A WATERSHED IS:
“a land area that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to outflow points such as reservoirs, bays, and the ocean.”
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Watersheds
Southern Indiana mostly falls into the watersheds of either the Wabash River or the Ohio River. But within those larger regions, you can break it down further into several forks of the White, Ohio, and Muscatatuck rivers, and many smaller watersheds.

Looking at conservation through the various watersheds we impact is important for several reasons. Because watersheds are centered on the flow of water from high land to lower ground, and then onto bodies of water, we can predict and track how the habitat we restore in one area impacts others downstream. And because humans and wildlife rely so heavily on clean water for survival, conservation plans must take into account our impact on water quality.

Threats to water quality
Contamination from chemicals, sediment, and sewage is a major threat to water quality in Indiana. A 2017 report from the Conservation Law Center (CLC) states that 7,000 miles of streams and rivers in Indiana are harmed because we are piping raw sewage directly into them.

Beyond this rather disturbing fact, Indiana has an aging water infrastructure. The CLC report emphasizes the need to improve not only our built structures like pipes, but also “our expansive natural infrastructure: the landscape that influences our ground and surface water.”

Natural areas like forests and prairies have porous terrain that naturally controls the rate of rainfall or snowmelt runoff. Groundwater is recharged and stored for times of lower water levels, such as hot summer
days. Fish and other aquatic life depend on this process to keep water levels high enough for their survival.

But nonporous surfaces like pavement and roofs, and even mowed lawns, prevent water from soaking into the ground. Instead, it flows directly into streams. Fast runoff across impervious surfaces can mean:

To some degree, sediment is a natural part of lakes and streams. Bottom habitat from decomposing branches and leaves is important for aquatic life. But when runoff picks up too much unwelcome sediment on its way to a body of water, havoc can result.

According to one Environmental Protection Agency report, excess sediment is a leading cause of water quality damage in the U.S. By clouding the water, sediment impedes light from reaching underwater plants. These plants are a critical part of the aquatic ecosystem by consuming nitrogen, producing oxygen, and providing habitat and food. Increased runoff can also spur extra algal bloom, which kills aquatic life by reducing dissolved oxygen levels.

Sycamore’s solutions
Read enough depressing statistics? We have too. So let’s roll up our sleeves, put on our waders, and make some positive change for Indiana’s waterways.

Sycamore is working to improve water quality in Indiana in several ways, but perhaps the biggest is building riparian buffers. These are areas of vegetation, preferably native plants, that border and protect rivers, streams, and other bodies of water, and the bigger they are, the more good they can do.

Over-sedimentation of water occurs when there aren’t enough barriers or water absorption as runoff heads toward waterways. Riparian buffers have been shown to reduce sediment load in runoff by 60 to 90% (conservationtools.org). Tree roots and downed trees form a barrier to slow the flow of surface water, trapping sediment before it reaches the water. Roots of woody and herbaceous plants strengthen stream banks to better withstand erosion. Thick riparian buffers full of woody and herbaceous plants (not just grass) are uniquely good at trapping nitrogen from runoff, a major pollutant of watersheds. And studies show that the wider a buffer is, the more effectively it traps such harmful nutrients.

Forests also play a major role in regulating stream temperature. Thick forest canopies over smaller streams are extremely effective at regulating the amount of sunlight that reaches the water. This helps minimize temperature fluctuations and maximum temperatures. And the woody material that falls from trees into the water provides fish habitat, food for macroinvertebrates, and traps for additional leaf litter and wood. Trees create more bottom habitat than streams with grassy buffers, and store nitrogen in their trunks before it reaches the water.

This is why Sycamore concentrates on expanding some of our most important properties along bodies of water. The Beanblossom Creek Conservation Area is a perfect example. Beanblossom Creek flows into the White River, passing more than 50 miles of agricultural and developed land on its way. As we continue to acquire and restore properties along the creek, we can prevent chemicals and other sediment from flowing directly into the creek. Sycamore protects more than 1,500 acres in this conservation area, and we strategically add to our protected land there as we’re able.

Sycamore’s long stretches of woods along Beanblossom Creek also provide corridors for the safe shelter and migration of wildlife. As we envision an Indiana that looks more like the wooded landscape of our past, building wildlife corridors will be a crucial part of conservation. Sycamore collaborates with the Indiana Department of Natural Resources, the US Forest Service, and other conservation groups to realize this large-scale vision.
A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.

ALDO LEOPOLD, A SAND COUNTY ALMANAC

Many of you know that I left Sycamore Land Trust in August after eighteen years as its first and only Executive Director. I am proud of the work we’ve done. I am hopeful for the organization’s future. In that time, we went from 500 acres to nearly 10,000 acres. We built the Beanblossom Creek Conservation Area. We saved Columbia Mine. We’ve taught thousands of children in southern Indiana to love plants and bugs. The board and staff are committed, smart people full of love and dedicated to service. We are financially strong and poised to change the course of southern Indiana’s natural history.

My work with the Conservation Law Center will allow me to continue working with Sycamore and other conservation groups. I’ll also be able to focus on endangered species and public lands and other topics close to my heart. I hope you’ll follow our work. Once more into the breach.

The sentiment I feel most strongly about my time with Sycamore is gratitude, for we have only ever been able to do what our supporters have enabled us to do.

I have gratitude for many people, but I’ll mention only three. They’re all passed, so nobody can complain. Dan Willard was an early board president. He taught me that the land can’t save itself. People are beautiful. Embrace them. Harry Hollis was a longtime member of Sycamore and donated a conservation easement on his family land in southern Brown County. He told me about a time before cars, before television. The land spoke volumes if you’d listen. Marian Armstrong grew up on a farm that became a gravel mine for the new I-69 highway. She never let me drive her by the homestead because it hurt her too much. She taught me about heritage and connection. They each taught me about love in their own ways.

Throughout my time at Sycamore, and continuing on in my new adventure, I will be guided by those lessons, and with their blessing, Leopold’s Land Ethic. Thank you all. We have work to do.
All ethics so far evolved rest upon a single premise that the individual is a member of a community of interdependent parts. His instincts prompt him to compete for his place in that community, but his ethics prompt him also to co-operate (perhaps in order that there may be a place to compete for).

The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.

This sounds simple: do we not already sing our love for and obligation to the land of the free and the home of the brave? Yes, but just what and whom do we love? Certainly not the soil, which we are sending helter-skelter down river. Certainly not the waters, which we assume have no function except to turn turbines, float barges, and carry off sewage. Certainly not the plants, of which we exterminate whole communities without batting an eye. Certainly not the animals, of which we have already extirpated many of the largest and most beautiful species. A land ethic of course cannot prevent the alteration, management, and use of these ‘resources,’ but it does affirm their right to continued existence, and, at least in spots, their continued existence in a natural state.

In short, a land ethic changes the role of Homo sapiens from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.

It is inconceivable to me that an ethical relation to land can exist without love, respect, and admiration for land, and a high regard for its value. By value, of course, I mean something far broader than mere economic value; I mean value in the philosophical sense.

Perhaps the most serious obstacle impeding the evolution of a land ethic is the fact that our educational and economic system is headed away from, rather than toward, an intense consciousness of land. Your true modern is separated from the land by many middlemen, and by innumerable physical gadgets. He has no vital relation to it; to him it is the space between cities on which crops grow. Turn him loose for a day on the land, and if the spot does not happen to be a golf links or a ‘scenic’ area, he is bored stiff. If crops could be raised by hydroponics instead of farming, it would suit him very well. Synthetic substitutes for wood, leather, wool, and other natural land products suit him better than the originals. In short, land is something he has ‘outgrown.’
Sycamore Land Trust’s latest land purchase along Beanblossom Creek has a special tie to our first wetland parcel in the area, which was acquired more than two decades ago. The winter 1995 issue of The Twig heralded an ambitious new project on the front page, named “Habitat for Herons.” A 94-acre parcel of high-quality wetlands was for sale in Monroe County, right next to the US Fish and Wildlife Service’s Restle Unit of the Muscatatuck National Wildlife Refuge. The property was found to contain a great blue heron rookery with 16 nests, only the second rookery then known in the county. Although Sycamore was only five years old and still an all-volunteer organization, and had protected just four other properties so far, our board was determined to act.

The headline article in the The Twig outlined the challenge: Sycamore had to raise a $16,000 down payment within eight months, followed by the balance of the $53,000 purchase price in the next five years. This was no small goal for the young organization, which had only purchased one property at that point. But an update in the following spring 1995 issue reported good progress, with over $9,000 raised. And the news in the fall was even better - “We did it!” The property had been purchased, four years ahead of schedule. In just a few more years, “Habitat for Herons” became the cornerstone that grew into Beanblossom Bottoms Nature Preserve, which now encompasses nearly 700 acres of contiguous habitat protected by Sycamore.

Now, thanks to you, we’ve done it again. Another great blue heron rookery with over two dozen nests is protected by our newest land acquisition, a 66-acre parcel on Beanblossom Creek that lies less than a mile upstream from Beanblossom Bottoms. Named Grandchildren’s Woods, the property was purchased with a grant from the Laura Hare Charitable Trust, two major anonymous gifts, and money from our Beanblossom Creek Bicentennial Conservation Area project fund.

The preserve is a wonderful addition to the conservation area, featuring mature floodplain forest with 1.1 miles of creek frontage. A local family owned the land for decades, and the woods have remained essentially untouched for a long time. To protect the heron rookery from disturbance and due to lack of public road frontage, we will not develop public parking and access. A small farm field on the south end of the property will be reforested.

With the addition of Grandchildren’s Woods, Sycamore has acquired 773 acres in the Beanblossom Creek project area since 2015 – and all because of your support! Donations from Sycamore members and supporters including the Sam Shine Foundation, the Efroymson Family Fund, Oliver Winery, and the Ropchan Foundation have allowed us to raise over $1.4 million to more than match $1 million in State Bicentennial Nature Trust funding for land purchases in the area. The 94 acres of Habitat for Herons are now, 23 years later, part of over 1,500 acres preserved by Sycamore along Beanblossom Creek in Monroe County. It’s an impressive legacy, which we will continue to build upon – thanks to you!
The Laura Hare Lake at Columbia Mine Preserve, Sycamore’s largest property, within the Patoka River National Wildlife Refuge. The Refuge manages the property, and has built fish habitat by bundling cut invasive trees and placing them in the lake, thanks to a grant from the Alcoa Foundation and American Forests.
When I talk to students about water quality, most are surprised to discover that the number one pollutant of our water in Indiana is sediment. But it’s true: the Environmental Protection Agency lists sediment as the most common pollutant in rivers, streams, lakes, and reservoirs. As you read in the cover article on page 2, factors like erosion, surface runoff, and plant and animal decay can all lead to sediment buildup in our waterways, and this affects the health of the environment and we humans who depend on it.

Clean water speaks to many of us. According to a 2017 poll commissioned by the Nina Mason Pulliam Charitable Trust (a Sycamore funder), the environmental issue that concerns Hoosiers most is clean water. Ninety percent of respondents in this statewide poll were “very concerned” or “somewhat concerned” about the water they drink, swim, and fish in.

Part of caring for the earth is building a conservation ethic among Hoosiers of all ages, so that all will embrace the responsibility to protect it. Through Sycamore’s Environmental Education program, we reach more than 5,000 participants annually, mostly students pre-K through 12th grade. We teach about water quality through hands-on stream site assessments, macro-invertebrate identification, dissolved oxygen, and pH testing, all to help determine the overall quality of the water and riparian area. Students learn first-hand how a healthy habitat impacts water quality.

Native plants are outstanding at holding onto soil because the root system is so deep and extensive, and perfectly suited to our climate. The roots also help soil absorb more water, slow down the flow of water, trap sediment, and naturally filter runoff. For example, native big bluestem grass can grow six feet or more above ground while the roots extend eight feet below ground. Compare that to typical lawn grass roots, which extend only a few inches below the surface.

One of the most rewarding programs we bring to schools is the Native Plant Project, funded by several groups including the Duke Energy Foundation, INPAWS, and the Brabson Library and Educational Foundation. Through this program, students have planted hundreds of trees and thousands of native plants on their school grounds and Sycamore properties across southern Indiana. You can read more about the Native Plant Project in our summer 2018 issue of The Twig, available at sycamorelandtrust.org/twig.

You can help!
All of us have a role to play in reducing sediment runoff, and we can all make a difference!

- When mowing, leave a 10- to 25-foot buffer around the stream bank.
- Sweep driveways and sidewalks instead of hosing off into drains or waterways.
- Use erosion control blankets or straw when re-seeding an area or after tilling a lawn.
- Notify local government officials if you see sediment entering streets or waterways near a construction site.

The work we do is for Forever.
Together we can accomplish so much, but we need your help. Make a year-end gift to Sycamore to help care for this beautiful environment that sustains us.

Make your gift online at sycamorelandtrust.org/donate
For us, conservation is about making a local environmental impact and making certain that future generations have access to the kinds of beautiful natural areas that we grew up with. Holly spent her childhood summers outdoors – sometimes from sunrise to sunset – climbing trees, exploring the woods and creek near her home, and gazing at the stars while listening to cicadas. Those same summers, Roy was in the fields and forests adding to his rock collection, cataloging plants, and running with his brother and sisters. We want our daughter Eliza to have the opportunity to develop her own relationship to the outdoors, and have that shape her life as it has shaped ours.

The daily news cycle has become so oppressive that it can be easy to give in to hopelessness. About our progress toward a healthier environment with clean air and water, about the future of conservation and protection of our natural spaces. Volunteering with Sycamore Land Trust, and in particular with the young adults group Sycamore Branches, is a powerful way to combat that fatigue and work for a positive impact in our local space. By joining with other young adults in our community who are looking for ways to be environmentally aware and connect with natural spaces, we hope Sycamore will foster lifelong conservationists and activists.

The more that people in the region are aware of and passionate about the mission of Sycamore, the better our chances that protected land in the state will grow and thrive. That means more places like Beanblossom Bottoms: crucial habitat for wildlife and a vital natural corridor accessible to all those who visit. We can’t wait to take Eliza to run up and down the new boardwalks, and start exploring her own connection to the natural world.

Beloved for its rolling hills, rich forestry, and an abundance of wildlife, southern Indiana is an outdoor lover’s paradise. A recent study conducted by Visit Bloomington found that the outdoors are the number-one draw for tourists to Bloomington. Within this paradise, there’s a slew of water-related hidden trails for hikers of every skill level.

Formerly a limestone quarry, The Cedars Preserve protects mature red cedars, sinkholes, and piece of history in southern Indiana. Though legend has it the original owner perished aboard the Titanic, the quarry lives on through large remnants of limestone and a small wooden shed. The 1.4-mile trail on this Sycamore Land Trust property in Monroe County will lead you past these features and alongside a small tributary off Clear Creek. As you hike, listen for the songs of the Louisiana waterthrush and prairie warbler.

“Don’t go chasing waterfalls” is a song you wouldn’t want to listen to at Dilcher-Turner Canyon Forest in Greene County. A 1.6-mile loop trail will guide you through a section of the 63-acre Sycamore preserve where plunging ravines and seasonal waterfalls impress hikers. You’ll pass a deep ravine and cross a small creek that meanders through the acreage. The loop trail takes you past breathtaking limestone outcrops. You’ll love this neck of the woods just as much as the scarlet and summer tangers, walking ferns, and club moss that call it home. With a moderate intensity rating, this is accessible to most hikers.

Spring Mill State Park has opportunities for every adventurer. Due to multiple cave springs, a pioneer village was created in the early 1800s. This village is open to visitors eager to learn about the former distillery, grist mill, saw mill, and wool mill. Check out Twin Cave, where you might be able to see some endangered blind cavefish. The Donaldson Cave is a great experience for self-motivated adventurers willing to take the extra time to register through the Indiana Karst Conservancy and receive a permit. I would highly recommend this for all of my fellow cavers.

Happy exploring!
Explore your world
Discover a new hike
Enjoy the great outdoors

Request the latest edition of our free Nature Preserve Guide at sycamorelandtrust.org/preserve-guide

Help Sycamore plan for the future and make sure your membership never lapses by becoming a Sycamore Sustainer.

Your ongoing, monthly gift means the world to us and the habitat we protect! And it’s easy to set up at sycamorelandtrust.org/donate.

Thank you!

Come visit our new home on the web

We’re thrilled to welcome you to our new website!

SYCAMORELANDTRUST.ORG

Visit us on the web for all the info you need on places to hike, nature news, events, volunteer opportunities, and more.

Designed by BLU LINE

Photo by Steve Gifford
Join us for a hike, workday, or special event! Hikes are free for Sycamore members; non-members are $5/person or $10/family unless otherwise specified. Volunteer days are always free. For more details on an event and to RSVP (required for hikes and volunteer days), visit sycamorelandtrust.org/events.

### OCTOBER

#### SYCAMORE BRANCHES HIKE & BREW
**Saturday, October 20, 1-4pm**
Laura Hare Nature Preserve at Downey Hill (Brown County)
Join our young adults group for a fun and challenging hike at our largest preserve in Brown County, followed by beers at Big Woods in Nashville. The hike is free; beers are on you. Carpooling is strongly encouraged.

#### REEL ROCK FILM TOUR
**Sunday, November 11, 6-9pm**
Buskirk-Chumley Theater (Bloomington)
Sycamore Branches presents the second annual REEL ROCK Film Tour, a one-day film event celebrating rock climbing. Sponsored by Loren Wood Builders, Hoosier Heights, and JL Waters and Co, with tons of raffle prizes. $15 general admission; $10 students.

#### THIRD THURSDAY PRESERVE-A-PRESERVE DAY
**Thursday, November 15**
Save the date for the last volunteer day of the 2018 Preserve-a-Preserve Day season. Details (time and location) will be posted on our website. Snacks included!

### NOVEMBER

#### HOLIDAY OPEN HOUSE
**Friday, December 7, 5-9pm**
Cedar Crest
Sycamore members are invited to this festive party with carolers, hors d’oeuvres, drinks, a crackling fire, and plenty of merriment at our headquarters in Bloomington.

#### NEW YEAR’S HIKE
**Sunday, January 6, 2019, noon-2pm**
Laura Hare Nature Preserve at Downey Hill
Start your New Year’s off right with a healthy hike through the beautiful hills of Brown County.

#### LITTLE HIKERS: WHO’S BEEN HERE?
**Sunday, January 27, Noon-1:30pm**
Porter West Preserve (Monroe County)
Is that a bobcat track? Why is this feather on the ground? What bird is making that yank yank yank sound? We’ll explore and investigate the sights and sounds of nature to help us make an educated guess of “who’s been here?”

#### FEBRUARY

#### THIRD THURSDAY PRESERVE-A-PRESERVE DAY
**Thursday, February 21**
Save the date for the kick-off to the 2019 Preserve-a-Preserve Day season. Details (time and location) will be posted on our website. Snacks included!

**SEE THE IMPACT WE MADE TOGETHER**
Read our 2017 Impact Report at sycamorelandtrust.org/impact

Thank you!
Laura Hare Charitable Trust | Wylie Foundation, Inc.

AUGUST 1, 2017 – JULY 31, 2018

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Only members receive The Twig in the mail.

GIFT MEMBERSHIPS

It’s the perfect gift for anyone who loves nature, critters, and passing on a conservation ethic to future generations.

Buy your loved ones gift memberships to Sycamore for just $40, and inspire a lifetime of giving back.

sycamorelandtrust.org/donate
Spring is coming! A Little Hiker tries his hand at tapping a maple tree for sap. This year's Little Hikers: Making Maple Syrup activity will take place on Saturday, March 4, from 12 – 2 p.m. at Cedar Crest, Sycamore's headquarters in Monroe Co. See p.12 for more information.