

Summer 2025

THE OZARK HOLLER

Ozark Land Trust Newsletter

Hands-on Conservation Management

How OLT Stewards the Ozark Lands it Owns

Land trusts protect over 60 million acres of North American land.

Let that number sink in for a minute and consider it in perspective: That's almost 50 percent bigger than the State of Missouri and almost double the size of Arkansas.

At Ozark Land Trust, we're very proud of the protection and restoration work we've done for over 40 years to protect over 32,000 acres, and with the projects we have underway, that number could well approach 40,000 in the next five years. We may be a small part of the overall protected landscape, but only by hundreds of land trusts doing their work across the continent, does the number grow to tens of millions.

That's for a land trust that didn't even have paid staff for half our existence, but has now grown to seven, so we can fully and responsibly support the conservation work that we and our partners have accomplished through the years.

Staffing a land trust is a complicated endeavor. The more we grow, the more we protect, the more staff we need to steward what we protect. And that need is a forever one, as for almost all lands we steward, we take on a responsibility to ensure they are perpetually conserved.

Not all of our stewardship is the same or requires the same level of time and resource investment. When we partner with our landowner friends to place a conservation easement on a property, we're promising to ensure that the land is not developed or used for purposes contrary to its conservation values. The landowner retains ownership, and our role is enforcement of the restrictions, not the day-to-day management of the land.

But then there are the lands OLT owns. On those, we have the responsibility to manage them in ways that are consistent with the best potential conservation values of that property, whether it be forest, watershed, grasslands or habitats for essential species.

Almost 20 percent of the lands we protect, we also own, including the very exciting Moore Cave project in Perry County, MO that we just acquired in partnership with a number of agencies and nonprofits. Acquiring this land (see story on p. 4) and keeping it safe will ensure that entrances to caves that house the endangered grotto sculpin, only present in this area, are free from development that could perilously impact the habitat in which they reside.

Our goal for our owned lands, a highlighted batch of which are shown on the enclosed map (p. 6) is to nurture them in ways that are appropriate given their natural resources, habitats and conditions. Mike Currier, our Board member and chair of OLT's Land Conservation Committee, gives an overview of how we approach management of our owned lands.

These lands can also provide the public with examples of different kinds of natural resources and perhaps have visitors imagine how they might protect their own lands for conservation. From a prairie that serves as a stellar example of its kind, so much so it is studied for academic purposes; to a park next to a small-town village square (with its own cave, like the land OLT just acquired in Perry County) to a nature walk nestled behind, of all things, an industrial park, OLT's owned lands present some unique attributes that broaden visitors' minds about conservation and land protection.

We hope you enjoy this brief walk through our owned lands, and always feel free to browse our website at ozarklandtrust.org for more information. Either way, we hope to see you both online and in person soon!

The Science & Art of Ecological Management

Maintaining Resilient & Functional Lands



By Mike Currier, OLT Board Member

“Conservation biology is often described as a ‘crisis discipline’—its practitioners must act before all the facts are in. Thus, it is both a science and an art.” (Soulé, 1985)

We have a deep-rooted connection to our bioregion. Land sustains us in many ways: the food we eat, the air we breathe, the water we drink. It enriches our lives economically, culturally, and spiritually while providing our basic human need for biodiversity, green space, and recreation.

Ozark Land Trust (OLT) owns and manages almost 5,000 acres of land (“nature preserves”) in the Ozark Highlands bioregion. As Larry indicates in his introduction, we have arrived at ownership of our fee-owned preserves in a variety of ways, through donation, partnership and circumstance. But our commitment, no matter how these lands were acquired, is to protect our ‘nature preserves’ in perpetuity from development and to sustain or improve them by using the best management practices. These lands arrive in OLT’s ownership in all kinds of conditions. Some are relatively intact; others are degraded in comparison to more pristine sites. Depending on the frequency

and intensity of past land use, they vary widely in terms of ecological health.

This may mean maintenance, restoration or reconstruction depending on the degree of previous human impact. Each site presents a unique challenge in which we learn how to manage through a combination of science and art. We achieve this in a number of ways: by studying the ecology of the Ozark Highlands, by assessing the current conditions and ecological values of our preserves, and by mitigating threats to these values. We develop management plans for each preserve, implement actions, monitor the response, and adapt to nature’s feedback.

Ecological management is an evolving science as we are constantly learning more about ecological systems, how they function and how they react to management changes. It is based on an understanding of basic ecological principles such as *ecological succession*, *natural disturbances*, *ecological thresholds* and *resilience*.

Ecological Succession is the process by which ecosystems are created and change through time from a variety of inputs, both natural and human initiated. The natural communities of the Ozark Highlands evolved within a range of *natural disturbances* including climate, fires and floods over thousands of years. Diverse ecosystems are maintained by these same historic disturbance patterns.

Ecological thresholds are tipping points that occur when inputs outside the historic range lead to irreversible changes. For example, land that has been grazed repeatedly, with high numbers of livestock for extended periods of time, goes through thresholds beyond which the native community cannot be restored. Soils are compacted and soil micro-organism communities are altered resulting in decreased diversity, complexity and resilience.

Resilience is the ability of an ecosystem to recover or bounce back after a disturbance (within its historic range). For instance, when a prolonged drought occurs, a resilient community has the capacity to recover. Healthy soils are the key to ecological resilience.

These principles also underlie the maintenance, restoration, and reconstruction of natural communities. Each relies on the replication of natural disturbances, reflecting historic patterns. With ongoing restoration or reconstruction, natural communities progress through a series of thresholds, each exhibiting greater biodiversity, stronger dynamics and ecological resilience. To the degree the soil ecosystem is healthy, and native seeds persist in the seed bank, ecosystems can be restored. Our goal is to manage land keeping these principles in mind.

The art of ecological management involves the humility of knowing there is a lot we do not know about complex ecological relationships. We work with many unknowns including soil microbial communities, climate change effects, and the variety of disturbances that affect small remnants.

Let’s explore three levels of management ranging from the maintenance of a largely intact, functioning ecosystem to the restoration or reconstruction of sites that have been degraded.

At Woods Prairie Preserve, a 40-acre prairie remnant in Lawrence County, MO, OLT is engaged in *maintenance management*. The prairie is high quality, as indicated by its diverse plant species. We partner with the Missouri Prairie Foundation to implement prescribed burns. We know that fire is integral to the health of tallgrass prairies removing thatch, cycling nutrients, controlling woody encroachment and enhancing biodiversity.

So how do we know that management is having the desired outcome? How does

the timing and frequency of prescribed fire affect prairie species diversity, taking into consideration the growing impact of climate change?

To answer these questions vegetation sampling plots have been established. They serve as a barometer to assess change against a baseline and to compare data with other prairies in the area. Monitoring on a regular and periodic basis is the key to adaptive management, as it is with any common endeavor including balancing a checkbook.

Schulze Nature Preserve in Franklin County, MO, a 23-acre dry-mesic loess glacial till woodland, presents a different challenge, that of *restoration management*. The preserve features impressive canopy trees (some over 3 feet in diameter at breast height). The vegetation is composed of native species, including a variety of spring wildflowers. However, the site is degraded and does not exhibit the biodiversity of high-quality reference sites on similar soils.

The site was grazed historically and is overrun with invasive species such as bush honeysuckle. Non-native invasive species have a huge negative impact on natural communities. They suppress native vegetation through competition for light and nutrients, inhibition of seed germination and disruption of species interactions. The goal of restoration is to move towards the diversity of high quality reference sites, which may or may not be attainable due to past land disturbance.

The challenge of evaluating success is a bit different than with maintenance management. We have to determine which management actions will produce the highest natural resource value. After invasive species are controlled, what actions do we take to increase diversity?

Baseline vegetation monitoring plots have been established in both treated and untreated areas to help answer these questions. After five years post-honeysuckle removal, sites that have been treated exhibit increased native species richness and cover. However, ground layer vegetation does not exhibit the diversity of a high quality reference site. And there is little evidence of oak regeneration. Based on this data the next management action is to introduce prescribed fire, a natural disturbance under which these woodlands developed.

Reconstruction management is reserved for agricultural lands where native vegetation has been completely removed. At the recently acquired Moore Cave Nature Preserve in Perry County Missouri, OLT is planning to reconstruct native habitats (see the article on Moore Cave on p. 4). The benefits include: reduction of soil erosion, improved water quality, pollinator support and climate mitigation. As with restoration management, reconstruction involves succession, and thresholds leading to greater ecological resilience. The project at Moore Cave involves many partners working together to protect a significant cave and karst resource that supports the federally and state endangered Grotto Sculpin.

Reconstruction is particularly challenging for a group of OLT's size along with

easement stewardship and other responsibilities. What are the benefits and costs? A tangible benefit is it presents a great opportunity to engage with a wide range of experts and resource partners to facilitate meaningful and lasting benefit to the conservation values of the site. At the same time it stretches our capacity as a small land trust.

OLT's ability to manage key conservation lands depends on the commitment of its own staff and volunteers; as the needs for restoration and reconstruction grow our reliance on partners, experts and donors to provide active assistance grow as well. As illustrated by these examples, guided by the science and art of ecological management, OLT is committed to managing resilient and healthy lands into the future.



Woods Prairie Preserve: This 40 acre prairie was part of a 1,700-acre homestead settled in 1836 by John Blackburn Woods. For four generations, the Woods family carefully managed the prairie while protecting it from the plow as other nearby prairies were destroyed. OLT purchased Woods Prairie in 1999 to be permanently protected as a nature preserve.



Schulze Nature Preserve: This forested, hillside 22.67 acre parcel within the city limits of Washington, Missouri conserves a portion of what was once the 200 acre Schulze family farm. Situated in a developing landscape, the topography, flora, and history of an earlier time are set aside on this property which OLT has owned since 2000.

OLT and Partners Protect Key Cave Habitat:

Collaboration preserves home of endangered Sculpin

OLT and a team of agencies and nonprofits have secured permanent protection for 80 acres of land in Perry County, safeguarding key cave entrances to part of the complex which serves as the only home for the endangered Grotto Sculpin. This partnership is a great example of how teams of conservation-minded groups can come together to achieve a critical goal that might be difficult or impossible to accomplish by any one member of the team.

The newly protected property features several cave entrances, eight sinkholes, and recharge areas that feed into the Moore Cave System. Stretching more than 26 mapped miles underground, the cave complex of which this property is a part is home to rare and endangered species like the grotto sculpin, Missouri cave snail, gray bat, northern long-eared bat, and tri-colored bat. Protecting this fragile ecosystem is essential as nearby development continues to grow.

The Grotto Sculpin (*Cottus specus*) stands out among the many benefits of protecting these cave entrances. Found only in Perry County, this cave-adapted fish was listed as endangered in 2013 due to pollution and human impacts. Thanks to this protection effort, we have an opportunity to retain and secure the clean water and habitat on which it depends.



The Moore Cave System is also a scientific and historic treasure. Inside are Pleistocene-era artifacts, including jaguar tracks and mastodon remains, offering a rare glimpse into the region's prehistoric past. It's not just a conservation project—it's a living classroom,

a research site, and an irreplaceable part of Missouri's natural heritage.

With development expanding south from St. Louis and north from Cape Girardeau, the need for protection was urgent. The property borders a growing subdivision, and without swift action, its sensitive karst features and endangered species would have faced serious threats.

A Powerful Team Effort

This achievement was made possible thanks to a strong team of partners:

OLT: Acquired the land and will be primarily responsible for stewardship, restoration, outreach and education.

The Conservation Fund: Was instrumental in working with the landowners to secure protection of the land for OLT's ultimate acquisition. Lent its conservation and transactional expertise to the project. Provided key support for the long-term stewardship of the land and cave protection.

Partner Perspective:

Gus Raeker, Missouri Department of Conservation

"We are thrilled to be a part of this team and project. OLT's acquisition of this Moore Cave property enables restoration of 80 acres of habitat of great benefit to federally endangered Grotto Sculpin, protection of the Moore Cave system and all the diverse wildlife it supports, and valuable opportunities to connect people to nature immediately adjacent to the City of Perryville."

Partner Perspective:

Jennifer Warren, L-A-D Foundation

"As a Missouri-based foundation, we recognized the critical importance of protecting the Moore Cave System and its surrounding karst recharge area—home to the endangered, cave-adapted Grotto Sculpin found only in Perry County. Providing funds to OLT enables them to acquire and manage the property. We are proud to help ensure the long-term preservation of this unique habitat and its rare species, while also promoting responsible public access and ecological restoration in partnership with a trusted conservation leader."

Missouri Department of Conservation:

Led the team that applied for federal funding for the project. Brought its own substantial funding under its Land Conservation Partnership Grant (LCPG) program. Brought its expertise, conservation leadership and restoration guidance to the project.

U.S. Fish & Wildlife Service: Provided major funding under the Recovery Land Acquisition (RLA) program to support protection of the Grotto Sculpin habitat in Moore Cave. This project could not have occurred without the leadership funding provided by USFWS and the federal government.

L-A-D Foundation: The owners and managers of Pioneer Forest recognized the habitat and conservation importance of this

Partner Perspective:

Clint Miller, The Conservation Fund

"The permanent protection and management of the cave could not have been accomplished without a strong and committed suite of partners. Partnership is the hallmark of our work at The Conservation Fund. We are grateful to have played a role in securing the Grotto Sculpin population and supporting the biological diversity of the Missouri Ozarks."



How You Can Help

Thanks to the commitment, generosity and investment of time and resources of all the partners, a total of almost \$930,000 has been raised for the permanent protection, restoration, management and public outreach for the Moore Cave project. OLT still needs your help for additional resources to support restoration of the land to protect the underlying caves and water sources, and for our ability to educate students and the public about the importance of this critical habitat and cave system. We estimate another \$200,000 will be required to fund all our work for both restoration and the perpetual ownership of this land. For more information contact Michelle Scherer, Conservation Project Manager, at Michelle.scherer@ozarklandtrust.org.

project and provided sizable funding for long-term management and stewardship of the land and habitat.

Mysun Charitable Foundation: A major supporter of conservation, the Foundation provided substantial funding for the ongoing management and stewardship of the project.

Missouri Cave and Karst Conservancy: MCKC manages a number of critical caves, entrances and habitats across the state. They are OLT's partner in permitting and protection for visitors to the site.

Other Regional and National Conservation Groups: Will help with ongoing stewardship, research, and management.

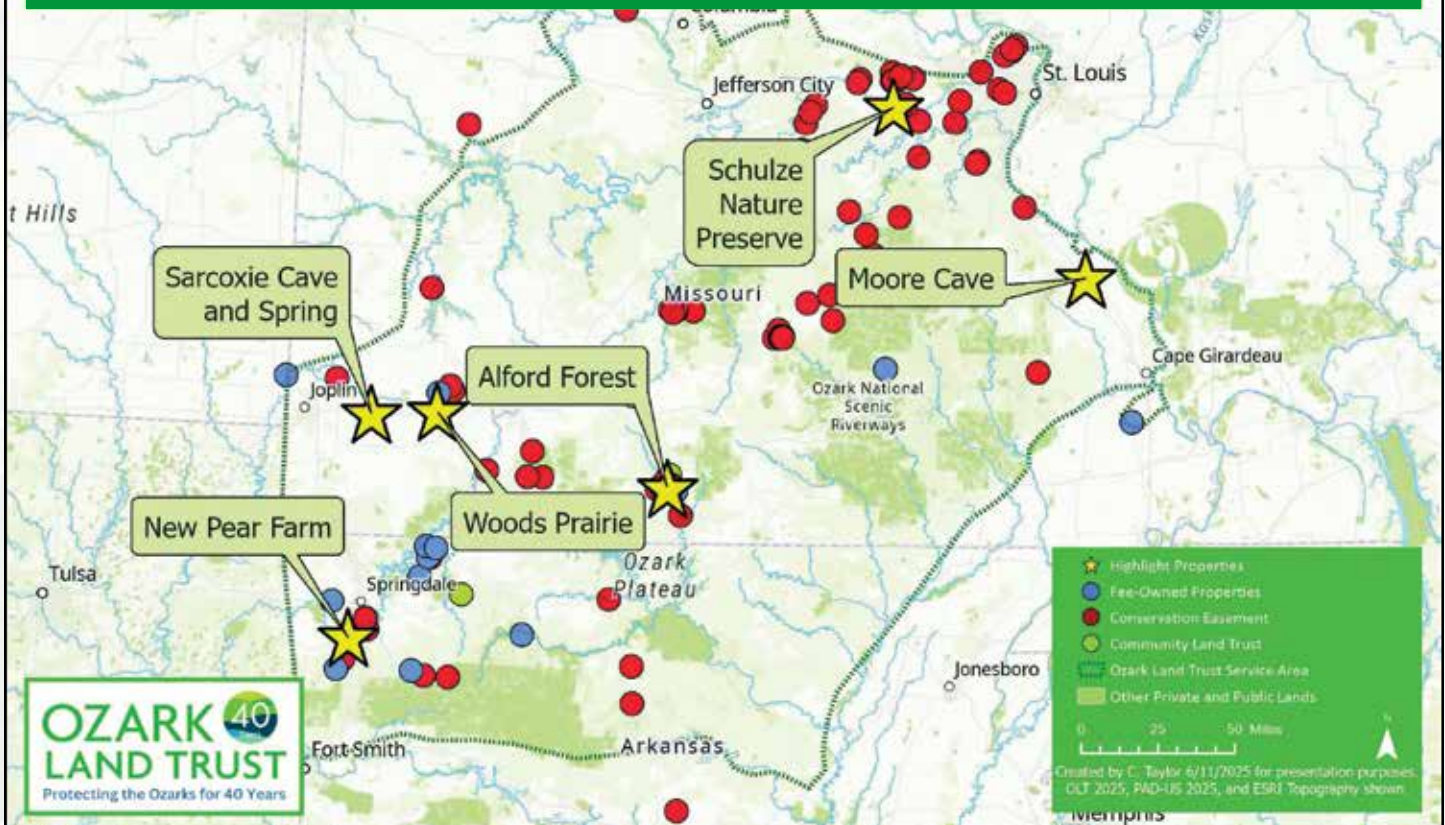
Looking Ahead: Restoration and Public Engagement

With the land now protected, OLT is launching plans to restore native habitat, ensure the long-term health of the ecosystem, and engage the public in learning about karst landscapes, groundwater, and species conservation. Restoration will transform former farmland back to thriving native habitat, preventing erosion, improving water quality, and strengthening the cave system for generations to come.

Visitors to OLT's Moore Cave land must be permitted by MCKC in advance of their visit. For information about visiting requirements, please contact us at info@ozarklandtrust.org.



Highlights of OLT's Owned Conservation Lands



OLT permanently protects 32,000 acres of diverse landscapes across the Ozark region in several ways. About 5,000 acres are owned by OLT, and with that ownership comes the responsibility of active management of those lands (see Mike Currier's article on p. 2 that offers an overview of the different ways we address management for each property). Many of these lands are also featured on our website at ozarklandtrust.org.

The map above highlights just six of the properties we own, stretching across Missouri and Arkansas, to show how they vary in their use, their resources and OLT's work in managing their individual characteristics:

- Moore Cave, featured on p. 4, is OLT's latest land acquisition. This 80 acre parcel not only protects key entrances to part of a 26-mile cave complex in Perry County, MO, but will allow OLT to partner with agencies and nonprofits to tell the story of the nationally known Moore Cave system. And securing the land and those entrances helps protect the endangered grotto sculpin, native only to this cave structure. Restoration and access to the public and educational groups is part of the long-term plan. Permitting for visitation will be administered by the Missouri Cave and Karst Conservancy (MCKC).
- Woods Prairie in Southwest Missouri offers a tremendous remnant prairie resource for visitors, researchers and conservationists. OLT has been aided by our friends at the Missouri Prairie Foundation in nurturing this beautiful prairie, and regular volunteer support and regular burns allow Woods to remain a wonderful example in an era in which many prairies have sadly disappeared from our landscape due to development and other threats. Those interested in visiting can contact us at info@ozarklandtrust.org.
- Sarcoxie Cave and Spring is a small pocket park off the town square in the town of Sarcoxie, MO, and provides a beautiful resource for this small and historic community. The cave and spring are protected and as with Moore Cave, we partner with MCKC for permitting and visitation to the extraordinary natural resource.
- Schulze Nature Preserve in Washington, MO, is a unique 22 acre natural area sitting immediately behind a developed commercial park. The preservation of this land so proximate to working areas allows those nearby to enjoy a pastoral setting during a lunchtime break or for an evening activity. Several creek crossings and a variety of native species make this a favorite place for conservation-minded visitors to the area to come.
- New Pear Farm: While not open to the public, this land owned by OLT serves as the home for an organic farm that provides food for restaurants and resellers in the Northwest Arkansas community. OLT and its fellow land trust, Northwest Arkansas Land Trust, have adjacent lands protected in this agricultural and native haven in the rapidly developing part of the state.
- Alford Forest: OLT and its management partner have 3,200 acres of Ozark forest protected from development in an area that due to its proximity to populations and resort communities across southern Missouri and northern Arkansas, has seen extensive pressure from subdivisions and commercial development. While not available to the public, OLT has secured carbon credits on this land, as it has been recognized for its contribution to reducing greenhouse gasses. OLT also has 800 adjacent acres under conservation easement, making the entire forest complex a total of about 4,000 acres of Ozark tree maintenance and growth.

Goodbye... and Hello!

Karen and Larry pass the reins but remain part of the team



Larry Levin, Executive Director

Karen and Larry are writing this together to our members because we've arrived at the same stage of our OLT lives at the same time. The stage at which we're leaving...and we're not.

Did that make any sense? Well, if not, let us explain.

Karen is finishing out her three-year stint as President of the OLT Board, and we're so pleased that our longtime Treasurer, and more recently also Vice President, Debbie Gittinger, will succeed her in the presidency. But Karen will remain on the Board, continuing her commitment to conservation across the Ozark region.

Larry is winding down his six-year stint as Executive Director at the same time as Karen passes the gavel to Debbie. Our search for a new ED is well underway, but as with Karen, Larry isn't going anywhere...he will continue to work with OLT in a part-time capacity, serving whatever needs his successor and the Board deem most suitable as we begin the era of new staff leadership.

While Larry, Karen and her predecessor as President, Jim Reeves, all come from legal backgrounds, we've each brought different experiences and tools to OLT.

Karen has expertise in agency management, in corporate planning and in energy projects and finance. Jim has his own mediation consultancy and teaches mediation at Washington University School of Law. And Larry, an alum of that same law school, served as a real estate lawyer, businessperson and journalist before running and starting several nonprofits in St. Louis

This breadth of knowledge in leadership has provided OLT the ability to grow in many ways: with partnerships, public-private relations, nonprofit governance and fundraising expertise, and to build a strong board and staff to manage the planning and implementation of our conservation goals.

We're together pleased with OLT's accomplishments in recent years:

- A strong Strategic Plan, with much achieved;
- Adding almost 15 percent to our protected land portfolio in both Missouri and Arkansas over the last 6 years, with thousands more acres in the pipeline;
- Renewal of our national accreditation to 2029;
- Cultivation of great partnerships such as the one that led to acquisition of Moore Cave (see p 4);
- The biggest professional staff in OLT's history, matched by new and expanded funding from our supporters;
- More resources for managing our own lands as you see in this edition; and
- Our Promise campaign to grow our Operating Endowment to address our future needs and to help ensure financial stability.

We're also proud of the role we've played as a member of the Missouri Land Trust Coalition to make more landowners aware of the possibilities of permanent land protection, whether through OLT or any of our fellow land trusts across the state.

Every generation of lay and professional leadership hopes to leave its mark, and in addition to the goals we've set and achieved, we hope we've given our successors a foundation to chart the future of OLT, in conjunction with you and all our partners, adding their own distinct vision and skills to the mix.

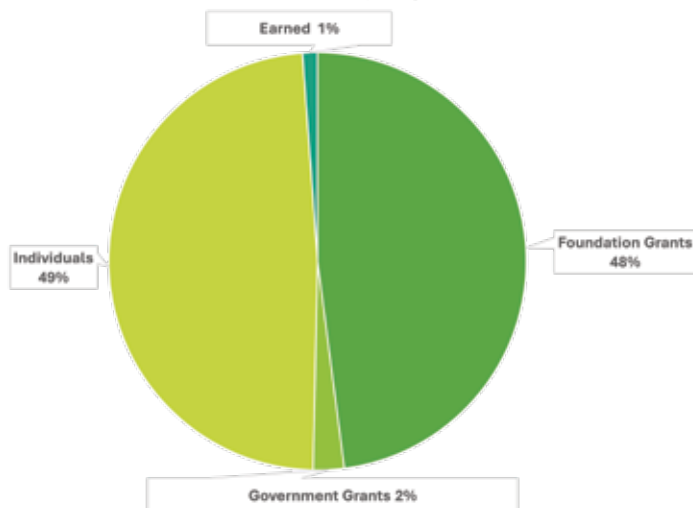
From the earliest days under founder Gregg Galbraith's nurturing, to its current iteration of paid professional staff with involved Board oversight, OLT has always had a focus on learning, growing and adapting, always with protection and restoration at its heart. We not only look forward to staying on as contributing partners, but to seeing what's in store for this exceptional and exciting group of dedicated conservationists.



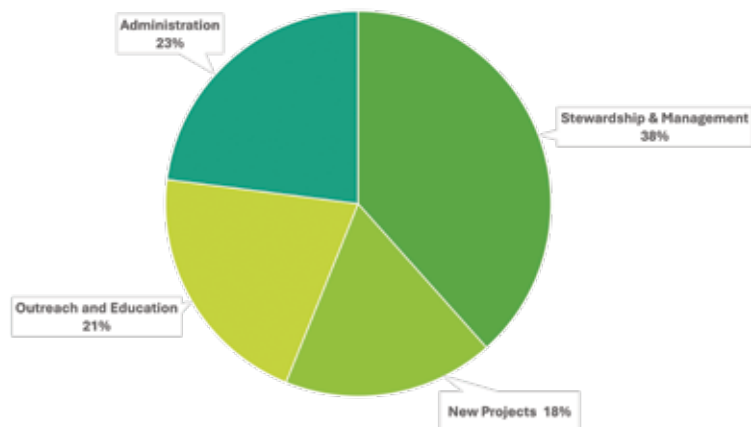
Karen Massey, Outgoing President

OLT's 2024 Financial Performance Highlights

2024 Total Income: \$795,172.01



2024 Total Expenses: \$738,917.62



OLT had a very successful year financially in 2024. Some of the highlights include:

- Our Promise campaign for our 40th year, which grew our Operating Endowment by almost a third in a single year. This commitment by our supporters helps ensure that OLT can not only weather events beyond our control, but also can grow to meet the increasing requests by landowners to permanently protect their lands.
- Our investments at the Community Foundation of the Ozarks, which include our Stewardship Endowment, our Operating Endowment, and other funds, grew substantially as a result of overall strong market performance.
- Our outreach work in the Meramec River watersheds continued to grow thanks to both a three-year commitment from one of our valued foundation partners, and an ongoing commitment for work in the Huzzah Creek watershed from one of our longstanding major supporters.
- Our donations from individual donors for our annual campaign remained strong and stable.

Our 2023 independent Audit of OLT's finances, and our 2023 Internal Revenue Service Form 990 informational return, are available on request. Contact Alexis Robles at Alexis.robles@ozarklandtrust.org for information.

THE OZARK HOLLER
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MISSION

To help people protect and conserve the natural resources and beauty of the Ozarks and to advocate for land conservation.

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