

Thumb Land Conservancy 2021 Annual Report



Tranquil Ridge Sanctuary, 0.5 Acre, Dryden Township, Lapeer County - Acquired 2021 April 09.



Thumb Land Conservancy

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The Thumb Land Conservancy expanded its protection in early 2021 with acquisition of our 0.5-acre Tranquil Ridge Sanctuary in Dryden Township, Lapeer County. Located on a ridge top along Lake George Road just north of the Oakland County border, the Tranquil Ridge Sanctuary is not a large preserve, but is almost surrounded by steep valley slopes covered by several hundred beautiful acres of mature forest. The steep slopes limit the development potential of most of the surrounding land. It's a great place to sit on a boulder and rejuvenate your spirit while looking out over the huge valley and lake below with a breeze in the tree tops and birds calling in the distance.

Thanks to the work of Ducks Unlimited, the TLC was awarded \$100,000 for land acquisition through the North American Wetlands Conservation Act, Small Grants Program in February of 2021. This funding is now available and will be used to purchase more property for the Southern Lake Huron Coastal Park project north of Port Huron.

We continued work on our 42-acre Bidwell Sanctuary in Burtchville Township, Saint Clair County, part of our Southern Lake Huron Coastal Park project. The work focused on expanding the coastal trail and developing the future park entrance and trail head along Metcalf Road.

Our stewardship work in 2021 included removal of invasive Japanese Barberry on the Deerfield Wind Energy Preserve west of Port Hope in Huron County, Garlic Mustard removal on the Dead End Woods Sanctuary in Fort Gratiot, removal of invasive shrubs on the Bidwell Sanctuary in Burtchville, and with the help of our new partner, Lake Huron Lawns of Lakeport, maintenance of the historic North Street Station in North Street and the entrance to the Bidwell Sanctuary in Burtchville.

In June, we joined the Clyde Historical Society for a walk in the Port Huron State Game Area near Ruby to learn about the history of the old Ford Estate, do a little invasive weed removal, and explore the mature forest. We found a few small colonies of some impressive plant species.

The TLC continued our education and outreach efforts through distribution of the TLC brochure, Thumb Nature Guide, TLC land protection guide, our newsletter, and updates to the TLC web site.

We look forward to expanding our work with partners new and old.

A handwritten signature in black ink that reads "William Collins".

William Collins
Executive Director

Thumb Land Conservancy 2021 Annual Report

2021 Year-In-Review

The Thumb Land Conservancy focused on stewardship, education, and fundraising in 2021. Following is a summary of monthly activities.

January

- Cleared the park entrance and Southern Lake Huron Coastal trail on the Bidwell Sanctuary in Burtchville.

February

- Completed and distributed the TLC 2020 Annual Report.
- Cleared the Southern Lake Huron Coastal trail on the Bidwell Sanctuary in Burtchville.
- Coordinated with Ducks Unlimited on our NAWCA grant for the Southern Lake Huron Coastal Park.

March

- Assisted the Blue Water Indigenous Alliance with grant administration.
- Removed invasive Japanese Barberry and Multiflora Rose on the Deerfield Preserve near Port Hope.
- Cleared the coastal trail and cut invasive shrubs on the Bidwell Sanctuary in Burtchville.

April

- Acquired the new Tranquil Ridge Sanctuary in Dryden Township, Lapeer County.
- Removed invasive Japanese Barberry and Multiflora Rose on the Deerfield Preserve near Port Hope.
- Cleared the coastal trail and cut invasive shrubs on the Bidwell Sanctuary in Burtchville.

May

- Conducted clean-up and posted signs on the new Tranquil Ridge Sanctuary near Dryden.
- Removed invasive Garlic Mustard on the Dead End Woods Sanctuary in Fort Gratiot.
- Cleared the coastal trail and cut invasive shrubs on the Bidwell Sanctuary in Burtchville.
- Joined the Clyde Historical Society in exploration of the Ford Estate in the Port Huron State Game Area.

June

- Removed invasive Garlic Mustard on the Dead End Woods Sanctuary in Fort Gratiot.
- Conducted park entrance maintenance on the Bidwell Sanctuary in Burtchville.

July

- Participated with the Blue Water Indigenous Alliance in selection of cultural displays for the Saint Clair River Walk in Port Huron.
- Conducted park entrance maintenance on the Bidwell Sanctuary in Burtchville.

August

- Maintained the historic North Street Station in North Street.
- Monitored the Putze Conservation Easement near Ruby.

September

- Monitored the Koester Conservation Easement in Fort Gratiot.
- Maintained the historic North Street Station in North Street.
- Conducted explorations of multiple candidate preserves in the Port Huron area.

October

- Continued plant species inventory on the Loznak Sanctuary in Marysville.
- Conducted explorations of multiple candidate preserves in the Port Huron area and Sanilac County.

November

- Initiated discussions and planning for potential new Huron County acquisition project.
- Completed grant application for park entrance development on the Bidwell Sanctuary in Burtchville.

December

- Completed grant applications for work on the Tranquil Ridge Sanctuary near Dryden.

Bidwell Sanctuary

42 Acres, Burtchville Township, Saint Clair County



Large Eastern Hemlock tree near the entrance of the coastal trail on the Bidwell Sanctuary.

The new Bidwell Sanctuary in Burtchville Township is a very important part of the proposed Southern Lake Huron Coastal Park, a band of several preserves and parks extending along Lake Huron through Fort Gratiot and Burtchville Townships. The preserves are generally inaccessible to the public and somewhat disconnected from each other, but not by much. With a little effort, we are within reach of creating a continuous 4.5-mile coastal park connecting the Port Huron area to Lakeport State Park. The Southern

Lake Huron Coastal Park would encompass most of the remaining beach ridge (or dune) and swale complex along the eastern shoreline of Michigan's Thumb region, a linear forested greenway connecting Port Huron with shoreline communities into Sanilac County. This coastal forest zone is well-suited for a recreational walking and biking trail with interpretive signage.

1 Mehta Preserve
 2 Fort Gratiot County Park
 3 MNA Galbraith Preserve
 4 TLC Peltier Beach Ridge Sanctuary
 5 St. Clair County Drain Commissioner Water Works Preserve
 6 Blue Water Development Preserve
 7 St. Clair County Drain Commissioner Shorewood Forrest Preserve
 8 St. Clair County Drain Commissioner Shorewood Forrest Preserve
 9 Shorewood Forrest Preserves (3)
 10 Presbyterian Villages Lake Huron Woods Preserve
 11 Fort Gratiot Nature Park

SOUTHERN LAKE HURON COASTAL PARK

Bidwell Preserve

Lake Huron

The future Southern Lake Huron Coastal Park is located on an ancient coastal landscape of parallel beach ridges and wetland swales with rare species unique to the Blue Water Area.

The coastal forest is vital for migratory birds that move and nest along Lake Huron.

When completed, the park will feature a nearly 4 mile trail.

Thumb Land Conservancy
42-Acre Bidwell Preserve Acquisition
 Part of the Southern Lake Huron Coastal Park
 Connecting Fort Gratiot to Lakeport State Park

Thumb Land Conservancy
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The beach ridge and swale complex along Lake Huron is a big part of what makes the Blue Water Area unique and a desirable place to visit and live. Yet, few understand the character and significance of this land because of limited public access. A public trail through the interior of this coastal forest corridor will provide a great opportunity for recreation and a small wilderness experience on the north edge of Port Huron. A forest trail will increase safe pedestrian access to public parks, as opposed to road shoulders with traffic, noise, exhaust, and major safety risks. Over the past few years, M-25 from Fort Gratiot into Sanilac County has proven to be increasingly unsafe and is now under investigation. Based on a 2019 trail plan commissioned by Saint Clair County, 37% of the population is completely uncomfortable with biking along roadways and 51% are reserved in their comfort. A clear majority prefer biking away from traffic. The Bidwell Sanctuary and Southern Lake Huron Coastal Park will get people out in nature and educate residents about significant natural features where they live, not a long drive away in some other place.

The Southern Lake Huron Coastal Park project would complete two major gaps in the Bay to Bridge Trail in Saint Clair County, specifically “Gap 20” and “Gap 21” identified in the County plan. As proposed, the coastal trail would pass through at least two TLC preserves, the Peltier Beach Ridge Sanctuary and future Bidwell Preserve. Currently, most of the preserves to be included in the larger park are difficult, if not impossible, for the public to access without trespassing on adjoining properties. The proposed coastal park and trail would open most of these preserves to the public. Once connected, the Southern Lake Huron Coastal Park is likely to become a regional destination for bicyclists, birders, naturalists, and other visitors.

Bidwell Sanctuary Southern Lake Huron Coastal Trail Burtchville Township, Saint Clair County

Work has continued on our new Bidwell Sanctuary in Burtchville Township. The entrance is now fully cleared, allowing for plenty of parking space off Metcalf Road. This part of the sanctuary was a former residence, demolished years ago, and was covered by weedy vegetation. Clearing has also continued on the foot trail to the north, part of the Southern Lake Huron Coastal Trail.

Back in November, the TLC enlisted the help of Justin Peltz, son-in-law of TLC member Brian Martin. Justin is very interested in natural area stewardship. He cleared honeysuckle shrubs and cut several Black Locust and Black Walnut saplings. As the snow cover recedes, we will continue trail clearing to the north.

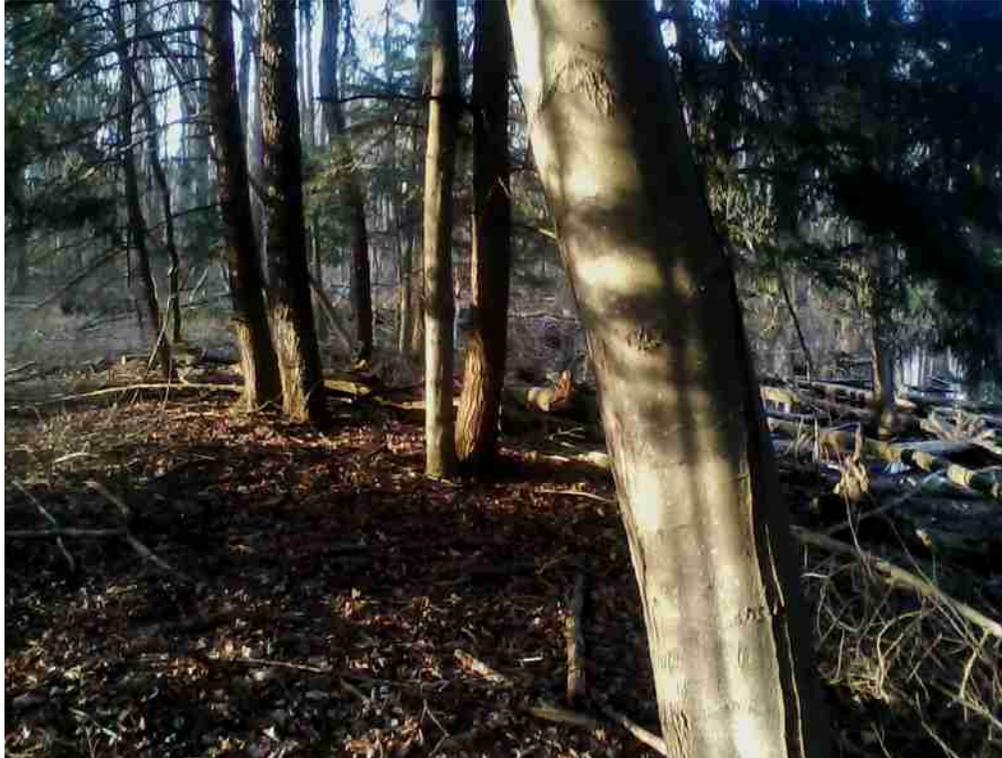


Justin Peltz cutting up a Black Walnut tree.

Justin is 31 with a family of three, soon to be four. He's had a love for nature for as long as he can remember. He was brought up gardening and started hunting in his early twenties. Justin appreciates access to public lands and supports the mission of TLC. He believes people need to have wild places to

experience nature. Justin feels that working with the TLC is a rewarding way he can help people connect with nature. He's glad to be a part of the TLC and excited to see what the future holds for our organization.

Thank you also to TLC members Tom and Laurie Dennis for continuing clean-up of refuse near the old residence and cutting invasive shrubs. If you would like to help, please contact us. We have a lot of clearing to do yet, and eventually will need building materials and labor for the park entrance.



Part of the Southern Lake Huron Coastal Trail on the Bidwell Sanctuary in mid April 2021.

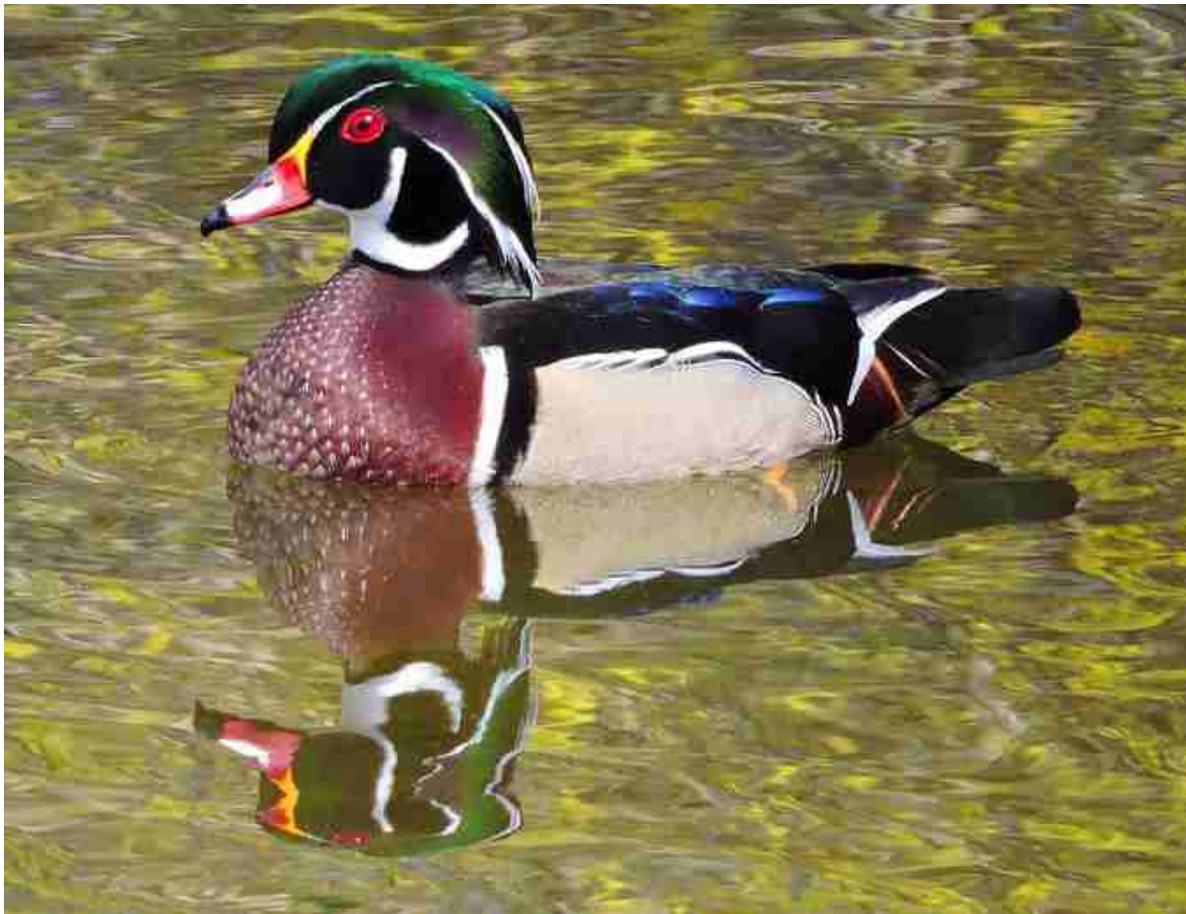


Wetland swale on the Bidwell Sanctuary in mid April 2021.

Southern Lake Huron Coastal Park Grant North American Wetlands Conservation Act Ducks Unlimited

On February 24, the TLC was informed that we were awarded a grant of \$100,000 for land acquisition through the North American Wetlands Conservation Act, Small Grants Program. This funding should be available later this year and will be used to purchase more property for the Southern Lake Huron Coastal Park project north of Port Huron. The TLC thanks Kali Rush, Regional Biologist with Ducks Unlimited, for her work in applying for this grant on our behalf, as she has on two other federal grant applications. Kali and Ducks Unlimited will administer the grants for the TLC, which anyone familiar with government grants knows can be a daunting task. In return, Ducks Unlimited receives a small percentage of the funding.

The North American Wetlands Conservation Act (NAWCA) was enacted in 1989 to provide federal cost-share funding to support the North American Waterfowl Management Plan, an international agreement that provides for the long-term protection of wetlands and associated uplands habitats needed by waterfowl and other migratory birds in North America. NAWCA funding is provided through a competitive grant-based program. Our Southern Lake Huron Coastal Park project is a nice fit for NAWCA funding because of the large amount of wetland in the beach ridge and swale complex, the significance of the associated upland beach ridges to the habitat, the close proximity of the park to Lake Huron, and the importance of this coastal habitat to migratory birds.



We see Wood Ducks in our Dead End Woods Sanctuary and the new Bidwell Sanctuary looks like great habitat for them, in addition to many other migratory bird species confirmed there. Photo via <https://www.goodfreephotos.com/> Good Free Photos

The North American Wetlands Conservation Council (NAWCC) created the Small Grants Program in 1996 to encourage new grantees and partners to carry out smaller-scale, long-term wetlands conservation projects that may otherwise not be able to compete in the larger Standard Grants Program. For 2021, the NAWCC set aside \$3 million for small grants. Only 30 eligible small grant proposals were received requesting a total of about \$2.8 million. Ducks Unlimited submitted 9 of these proposals requesting nearly \$850,000. NAWCC staff reviewed the proposals and recommended 28 of the 30 for funding. The NAWCC approved all 28, totaling about \$2.6 million, which included \$100,000, or almost 4% of the total funding, awarded to the TLC for our Southern Lake Huron Coastal Park project.

Ducks Unlimited began in 1937 as an organization focused exclusively on protecting ducks and other waterfowl game species. In recent years, the organization has expanded their work through an ecosystem approach that benefits a broad range of species and habitats. Many different environmental organizations have similarly expanded their work, realizing more and more how inter-connected everything is. As a result, Ducks Unlimited has been working with a growing number of partners dedicated to protection of the natural environment, particularly wetlands, for many different reasons. The following article describes the expanded approach: <https://www.ducks.org/conservation/national/ducks-and-a-lot-more?poe=conservation>

Thank you Kali Rush, Ducks Unlimited, and the North American Wetlands Conservation Council. It's nice to see this interest and investment on a federal level in the coastal wetlands of the lower Thumb region.

Tranquil Ridge Sanctuary

Dryden Township, Lapeer County

In 2020, the Thumb Land Conservancy set a goal of protecting at least one natural area in each of the six counties we serve in the Thumb. Our new Tranquil Ridge Sanctuary in Dryden Township, Lapeer County, acquired in April of 2021, put us one step closer to realizing that goal. The Sanctuary is located in a beautiful area along Lake George Road just a few hundred feet north of the Oakland County border. The sanctuary is located on a narrow ridge on the east edge of a huge forested valley, nearly 1 mile across and 2 miles long, with a series of lakes and wetlands at the bottom. It feels like the Smokey Mountains, part of one of the most impressive landscapes in southeast Michigan. Some areas along the Black River and Huron River valleys are close, but not the same.

Although the sanctuary is located in a relatively untouched natural area, there was an old cottage on the adjacent property which allowed a few invasive plants like Black Locust, honeysuckle, and privet to spread. There was also a little bit of junk. We took care of most of this in the spring and summer so that now you would hardly know. Now you can sit on one of the boulders on top of the ridge and look out over the valley with Brooks Lake shining below and feel the solitude.



View southwest from Tranquil Ridge Sanctuary of Brooks Lake.



View south from Tranquil Ridge Sanctuary of Lake George Road.



View southwest from the boulders on top of Tranquil Ridge Sanctuary.

Deerfield Preserve Stewardship

Huron Township, Huron County

From late March, our spring stewardship focused on burning invasive Japanese Barberry at the Deerfield Wind Energy Preserve in Huron County, about 4 miles west of Port Hope. Like many perennial plants, barberry roots are more vulnerable in spring as energy and nutrients stored from the previous growing season are used to send up new shoots. Burning the new spring shoots prevents the roots from being resupplied, which significantly weakens or kills them. Our work on the Deerfield Wind Energy Preserve has been very successful. Where two years ago the barberry was about 3 feet tall and covered well over half of the approximately 1-acre main work area, there are now very few barberry plants remaining. Those that survive are largely scattered back in the forest where they are limited by more shade and wetter soil, or were left in a few spots until burning conditions are better. There are also very few Multiflora Rose shoots visible. Native plant cover already appears to be increasing, including Canada Mayflower, Red Trillium, Foamflower, Royal Fern, and Sensitive Fern. It does not appear that removal of barberry has resulted in increased grazing of forest herbs by White-tailed Deer as we feared, but we will continue to monitor this.

Invasive weed control, particularly of Japanese Barberry, has been the primary stewardship activity on the Deerfield Wind Energy Preserve since 2016 and will remain so for the foreseeable future. We try to complete most of our barberry removal in mid spring because the plants are more susceptible to destruction at that time, with minimal energy stored in their roots from the previous growing season. Removal of the stems in spring prevents new leaves from recharging the roots, eventually resulting in death of the plants after repeated removal. In May and June we are busy with invasive Garlic Mustard removal on other preserves. We also try to limit the potential exposure of our workers to deer ticks in summer, which have an affinity for barberry and increase in number through the summer. In the fall, our work is rarely possible because of a deer hunting lease on the property. As a result, our work on the Deerfield Wind Energy Preserve is largely confined to March, April, and early May.

We have eliminated about half of the Japanese Barberry in the primary occurrence along the east side of the preserve. Where barberry once excluded most native forest plants, species like Red Trillium are now re-expanding. Had the thick barberry cover remained, tree seedlings would not establish and the natural regeneration and succession of the forest would be jeopardized. Native tree seedlings are now free to grow in the control area and will gradually fill the canopy as old trees die. Based on what we've seen in Huron County, barberry cover is now a major issue for forest owners if they hope to sustain timber harvests in the future.



2021 April 11 - View west of Deerfield Wind Energy Preserve at the south edge of our Japanese Barberry control area. Cutting and burning by the Thumb Land Conservancy since 2017 has all but eliminated barberry to the right. Barberry is still dominant to the left (light green shrubs) where we have not done any control yet. Thumb Land Conservancy stewardship assistant, Justin Peltz, is shown using a propane weed torch to burn the new barberry growth.



2021 April 11 - View south of Deerfield Wind Energy Preserve at the south edge of our Japanese Barberry control area showing barberry dominance (light green shrubs) where we have not done any control yet.. Cutting and burning by the Thumb Land Conservancy since 2017 has all but eliminated barberry to the north of this location.



2021 April 11 - View northwest of Deerfield Wind Energy Preserve showing forest previously dominated by Japanese Barberry. Cutting and burning by the Thumb Land Conservancy since 2017 has all but eliminated it in this area and native forest plants are recovering. This photograph was taken to the left of the previous photograph.



2021 April 29 - View south of the north end of the Deerfield Wind Energy Preserve at the north end of our Japanese Barberry control area. Burning was previously delayed in this area until suitable conditions because of the large amount of logs, stumps, and other woody debris.

Garlic Mustard Pulls Dead End Woods Sanctuary Fort Gratiot Township, Saint Clair County

Our Garlic Mustard removal in the Dead End Woods Sanctuary over two weekends in May was very successful. Garlic Mustard is all but eliminated across the southwest of the sanctuary, and we hit it hard to the east where a large patch has slowly spread. It now looks like the west half of the sanctuary is largely free of Garlic Mustard. Thanks again to our volunteers,



Spikenard - *Aralia racemosa*, one of several rare species on the Dead End Woods Sanctuary.

Old Ford Estate History Walk Clyde Historical Society Port Huron State Game Area

On May 24, the TLC joined the Clyde Historical Society for a historical tour of the site of the old Ford Estate in the Port Huron State Game Area along the west side of the old Ford Road trail.

This part of the State Game Area was farmed back then. Unfortunately, the open ground was colonized by very weedy vegetation including Black Locust, Tartarian Honeysuckle, Multiflora Rose, and Periwinkle. Amazingly, a few Red Trillium still persist in a sea of Periwinkle.



Old Ford Estate History Walk participants. Third from left to right: Connie Bates, Clyde Historical Society President, John Fody, Marysville Botanist, Wendy Casey, Michigan Nature Association Sanctuary Steward, Bill Atkinson, Michigan Nature Association Stewardship Coordinator, Kay Cumbow, TLC Board Member. Photo taken by Bill Collins, TLC Executive Director.



Old Ford Estate. This is what happens after several decades when you plant Periwinkle.



Old Ford Estate. This is what happens after several decades when you plant Periwinkle.



Old Ford Estate. Amazingly, a few Red Trillium manage to survive in the solid mat of Periwinkle.

Blue Water River Walk Native American Art Project Blue Water Indigenous Alliance

The TLC participated with the Blue Water Indigenous Alliance in selecting an art installation for the Blue Water River Walk in Port Huron that serves to represent and honor the local indigenous community. In early 2021, the TLC was invited by the BWIA and the Community Foundation of St. Clair County to help select from a few different proposed artistic displays. The voting for these projects took place in two sessions and the consensus of the BWIA and TLC was clearly in support of the Seven Grandfather Teachings installation representing courage, respect, humility, wisdom, truth, honesty, and love. The Seven Grandfather Teachings are said to be part of Native American culture with roots dating back to ancient times.

Artist Garrett Nahdee, a member of the Ojibway tribe of Walpole Island First Nation in Ontario proposed the installation of seven animals and symbols carved as oak log totems, or "doodem" in Anishinaabemowin, representing the seven teachings. The bear represents the spirit of courage. The bison represents the spirit of respect. The wolf represents the spirit of humility. The beaver represents the spirit of wisdom. The turtle represents the spirit of truth. The raven represents the spirit of honesty. The eagle represents the spirit of love. The Seven Grandfather Teachings display is located along the Blue Water River Walk near the United States flag and patio. For more information, see the Community Foundation of Saint Clair County web page at: <https://www.stclairfoundation.org/the-pillars-of-the-community-new-native-american-artwork-joins-blue-water-river-walk/>



The Seven Grandfather Teachings display along the Blue Water River Walk.



The Seven Grandfather Teachings display along the Blue Water River Walk. Left to right: Bear - courage, Buffalo - respect, Wolf - humility, Eagle - love, Beaver - wisdom, Turtle - truth, and Raven -honesty.

The Blue Water River Walk runs along the Saint Clair River in Port Huron. It starts immediately south of the Black River mouth and continues almost one mile south. The Blue Water River Walk is owned by the Community Foundation of Saint Clair County and open to the public year-round. The Saint Clair River shoreline for the River Walk was donated by local businessman and philanthropist James C. Acheson in 2011. For more information, see the Community Foundation of Saint Clair County web page at: <https://www.stclairfoundation.org/riverwalk/>

Since the inception of the Blue Water River Walk, the Community Foundation of Saint Clair County planned to honor the local Native American community along the trail. The first display installed along the walk was an eagle petroglyph by artist Kevin Sudeith. Bringing the Seven Grandfather Teachings to the community was part of the Blue Water River Walk Native American Art Project, a collaboration between the community foundation and community members. A Native American Art Recommendation Task Force was assembled for the project, which included Blue Water Indigenous Alliance chairperson Joshua Whiting, a member of Wendat of Anderdon Nation of Detroit. Joshua said they chose to bring Seven Grandfather Teachings to the community because it's a universal language or code that speaks to all people. He hopes the artwork stands the test of time and represents "the pillars of the community ... as a foundation for generations to come". Kevin Totty, Program Coordinator for the Community Foundation of Saint Clair County, and also a local pastor and chaplain, guided the participants in the artwork selection process. He believes that the installation celebrates Native American culture and helps people speak and collaborate. Of the seven lessons, the one that speaks to Kevin most is the eagle, which represents love and "soars above everything." Artist Garrett Nahdee hopes that his carvings inspire people to apply the teachings every day and change lives for the better.

Full Circle House of Prayer Grant Bidwell Sanctuary Information Kiosk Southern Lake Huron Coastal Trail Burtchville Township, Saint Clair County

The TLC made application in November to the Bioregion Reparation Fund of the Community Foundation of Saint Clair County for a grant of \$4,500 to construct an informational kiosk at the Bidwell Nature Sanctuary, part of the Southern Lake Huron Coastal Park. Sister Veronica Blake and Sister Concepción González, who are well-known members of the Blue Water area environmental community, initiated the Bioregion Reparation Fund in 2018 in order to carry on their legacy of ecological education, spirituality, and restoration in the bioregion defined by Lake Huron, the Saint Clair River and the Black River watersheds.

The fund was created under the auspices of the United States Region of the Sisters of Mary Reparatrix, an international religious congregation to which Veronica and Concepcion belong. Since its founding in France in 1857, the Sisters of Mary Reparatrix have been dedicated to repairing fractured relationships among humans and with God. In the second half of the 20th century, global environmental crises caused them to also focus on the need for humans to repair their relationship to the Earth.

Veronica and Concepción came to Port Huron in 1987. Veronica hails from Manhattan, New York City. Concepción was originally from Camaguey, Cuba, and had served in Peru and Colombia previously. In 1990, they established the Full Circle House of Prayer in Port Huron's South Park, where they began offering spiritual retreats and workshops. Soon after, the sisters started SWAMP, Savers of Wetlands and Marshy Places, for youngsters eight to twelve years old. Monthly gatherings, field trips and projects helped the children mature into adults who care about Earth and its ecosystems. Over the years since, they have focused more and more on the integrity of *all* Creation. They acquired a second house in Port Huron, naming it the Full Circle EcoHouse, and they have interacted with and supported many other local environmental groups.

The Bioregion Reparation Fund grants are awarded in alignment with Full Circle's ecological guiding beliefs:

- Earth Community is an interconnected web of life.
- Life within the web is sustained by diversity.
- Every creature in the web deserves respect.
- Justice and peace are integral to the life of the web.
- Compassion toward all leads to healing and reconciliation.
- Creation tends toward communion whose ultimate expression is love.

The planned kiosk at Bidwell Nature Sanctuary will be constructed at the sanctuary entrance and parking area at Metcalf Road, and it will provide information about the sanctuary's ancient beach ridge and swale ecosystem, plans for the Southern Lake Huron Coastal Park, our funders, the Blue Water Indigenous Alliance, and the TLC.

In July of 2020, we were able to complete fundraising of over \$300,000 to purchase and fund long-term stewardship of the 42-acre Bidwell property, which will preserve one of the last intact ecosystems of ancient beach ridge habitat along Lake Huron in the Thumb. We received help from many organizations and individuals, including the Carls Foundation, Community Foundation for Southeast Michigan, Consumers Energy Foundation, St. Clair County Community Foundation, Cargill, Inc., Franklin H. and Nancy S. Moore Donor Advised Fund of the Community Foundation of St. Clair County, and SEMCO Energy. This property is a key part of a proposed Southern Lake Huron Coastal Park project, which you can read about on our website at: <http://www.thumbland.org/projects.html>.

In October of 2020, we held a naming ceremony with the Blue Water Indigenous Alliance to assign Native American names to each of our nature sanctuaries. The Bidwell Sanctuary was co-named, "Chèkhònèsink hìtkwike schind lèkuwake," which means, "place among hemlock trees on sandy ground where there is sound of waves breaking," in the Lenape language.

Work continued on the Bidwell Sanctuary in Burtchville Township through the fall of 2021. Jack McLiver, owner of Lake Huron Lawns in Lakeport (LakeHuronLawns.com) did a great job clearing and mowing the sanctuary entrance, what soon will be a trailhead for the coastal trail. Jack is a friend from Scouting and gave us a good deal, not only on the Bidwell Sanctuary, but also on mowing our North Street Station in Clyde Township.

Koester Conservation Easement 79.4 Acres, Fort Gratiot Township, Saint Clair County

The TLC conducted our first monitoring inspection on the new Koester Conservation Easement, established on 2020 April 4. The Koester Conservation Easement protects nearly 80 acres of forested wetland and upland complex, one of the larger forest tracts remaining in Fort Gratiot Township. The property is located along the south side of Keewahdin Road and Pine Grove Avenue, extending south one-half mile.

Darrin and Kim Koester developed their impressive residence on land that was cleared decades ago, dominated by planted pines along with very common or weedy species such as Apple, Black Cherry, hawthorn, Gray Dogwood, Autumn-olive, Common Buckthorn, Tartarian Honeysuckle, Common Blackberry, Late Goldenrod, Panicked Aster, and grasses. TLC Executive Director, William Collins, helped Darrin identify invasive shrubs in this area, like buckthorn and honeysuckle, and suggested control methods.

The remainder of the Koester Conservation Easement consists of relatively mature, non-fragmented southern swamp and hardwood-conifer swamp forest complex on seasonally inundated to moist sands with scattered upland knolls. The forest vegetation is a sort of southern-meets-northern community characteristic of the Blue Water Area, a transitional vegetative region where nearby Lake Huron maintains cooler growing seasons and warmer winters.



The Koester Conservation Easement.



Early-successional and weedy woodland in the north of the Koester Conservation Easement.



The Warner Drain on the Koester Conservation Easement, appearing almost like a trout stream.

A conservation easement is one of the few ways that you can legally protect your land in perpetuity, basically as long as our legal system supports such easements. With a good land conservancy holding the easement, you can be assured that your property will remain protected no matter the future ownership. Conservation easements, despite being called “easements” do not allow public access. A conservation easement is simply a legal agreement between a landowner and a conservancy or similar conservation group or agency. Most easements can be customized to allow uses that you and the conservancy agree upon. While most conservation easements are written to preserve natural areas and allow for passive uses and minor impacts such as trails, firewood cutting, and hunting, many easements also allow for farming, selective logging, or limited expansion of new buildings and other structures. Assessors are often not agreeable to reducing property taxes, so if you consider a conservation easement, you should consult with your local assessor if you are anticipating any tax abatement.

Historic North Street Station Clyde Township, Saint Clair County

We are gradually making progress on the North Street Station. The TLC continued mowing, brush removal, and clean-up both outside and inside the building in August, September, and October. The structure will soon be ready for a long-overdue paint job. After we finish working on a small part of the roof, we are considering the possibility of exposing the original siding on the main rail station structure which dates back to around 1900. In the meantime, we will start painting the newer structural additions and we still have a lot of clean-up remaining.



North Street Station

Loznak Sanctuary City of Marysville

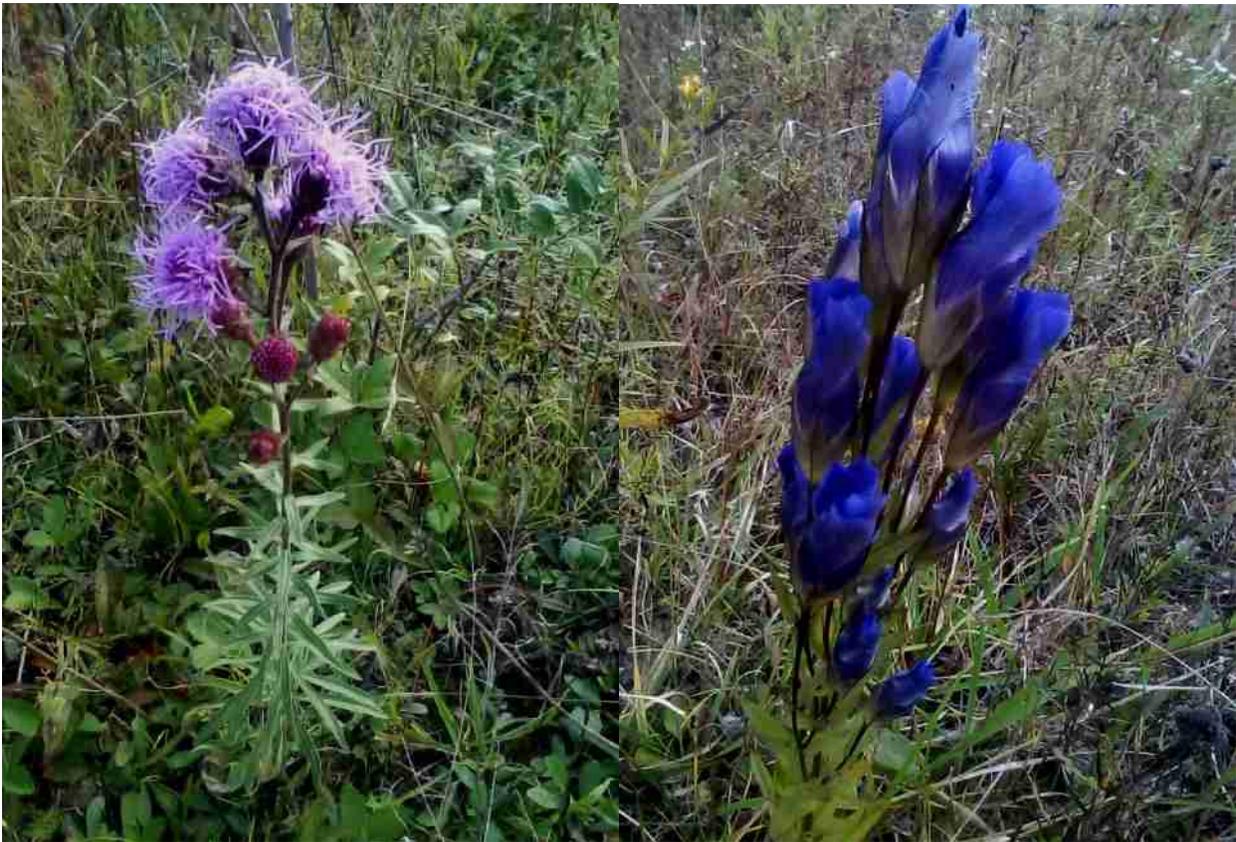
The TLC conducted further exploration of our 11.5-acre Loznak Sanctuary in 2021. The Loznak Sanctuary is located in a historically industrial area east of Busha Highway along Wills Street in Marysville. Although the property was partially used to store munitions from an adjacent production facility during World War II, there is an extensive remnant of lakeplain prairie, a rare natural community that once covered large areas near the Great Lakes. We have identified several plant species on the Sanctuary associated with lakeplain prairie and similar habitat, including: Riddell's Goldenrod - *Solidago riddellii*, Showy Goldenrod - *Solidago speciosa*, Stiff Goldenrod - *Solidago rigida*, Gray Goldenrod - *Solidago nemoralis*, Fringed Gentian - *Gentianopsis crinita*, Mountain Mint - *Pycnanthemum virginianum*, Rough Blazing-star - *Liatris aspera*, Tall Boneset - *Eupatorium altissimum*, Foxglove Beard-tongue - *Penstemon digitalis*, Nodding Ladies'-tresses - *Spiranthes cernua*, Switch Grass - *Panicum virgatum*, Three-awned Grass - *Aristida longespica*, Oatgrass - *Danthonia spicata*, Purple Love Grass - *Eragrostis spectabilis*, Sand Dropseed - *Sporobolus cryptandrus*, Yellow Lady-slipper orchid - *Cypripedium parviflorum*, Butterfly-weed - *Asclepia tuberosa*, Showy Tick-trefoil - *Desmodium canadense*, and Shrubby Saint John's-wort - *Hypericum prolificum*. Tall Boneset is a relatively recent arrival from the east coast via railroads, but uncommon and not recorded any closer than Monroe County. It is possibly limited to only this small part of Marysville where its cover on the Sanctuary and nearby land is extensive. Most of these species flower in late summer and early fall, providing vital nutrition for migrating insects, making the Loznak Sanctuary important habitat for butterflies and other pollinators.

The western half of the Sanctuary is a nice recovering forest interspersed with wetland. It is also adjacent to approximately 26 acres of unusual forested ridge and swale landscape which appears to have an interesting alluvial origin along the Saint Clair River dating back about 5,000 years.

Invasive weed cover is relatively low on the Loznak Sanctuary, consisting largely of scattered Autumn-olive, unidentified ornamental pear trees, sparse patches of Phragmites Reed, and Spotted Knapweed in the remnant lakeplain prairie, with buckthorn in the adjoining forest to the west.



Monarch butterflies on Tall Boneset. There were a large number of Monarchs on the sanctuary this day, indicating how important this habitat is for butterflies.



Rough Blazing-star (left) and one of the hundreds of Fringed Gentian on the preserve (right).

TLC Board of Directors

Cheryl Collins, President

Cheryl Collins of Brown City - Marlette formed the Thumb Land Conservancy in 2008. She has been at the forefront of natural area protection efforts in the region for over 20 years. Cheryl served on the board of directors of the Michigan Nature Association from 2003 through 2008, and co-founded the Macomb Land Conservancy in 2000 which merged with Oakland Land Conservancy to become Six Rivers Land Conservancy. In 2001 and 2002, she conducted a fundraising campaign as a volunteer on behalf of the Michigan Nature Association to purchase the Sharon Rose Leonatti Memorial Nature Sanctuary in Kimball Township, Saint Clair County, 9 acres with one of Michigan's largest remaining populations of State Endangered Painted Trillium. Through grants and individual donations, she raised \$57,000 in less than two years in her spare time. With the Michigan Nature Association, she developed funding sources resulting in grants of nearly \$500,000 for a statewide land acquisition campaign. Cheryl and husband, Bill Collins, worked together on many projects for Huron Ecologic, LLC since 1998. Cheryl served as Project Coordinator, assisting community groups in protecting local natural areas across Michigan. She prepared, organized, and presented exhibits and testimony for three Michigan Department of Environmental Quality Contested Case Hearings and two Michigan Environmental Protection Act suits involving State and federally regulated wetland and other natural features. She provided information regarding the Michigan wetland regulatory program and wetland violation files to the Michigan Environmental Council and U.S. Environmental Protection Agency. From 1996 through 1998, Cheryl was Assistant Drain Commissioner for Saint Clair County, working with Drain Commissioner Fred Fuller, who promoted natural watershed management and river restoration. In 2006, she was a Project Assistant for the Sanilac County Economic Development Corporation. She obtained a grant to construct a rain garden in Lexington and worked with the Huron County Economic Development Corporation on a Michigan Department of Transportation plan to identify significant heritage highway features along M-25. From 2006 through 2009, she was the Chairperson of the Sanilac County Brownfield Redevelopment Authority. She ran for Sanilac County Drain Commissioner in 2008, receiving 38% of the vote as a Democrat in a solidly Republican county. Cheryl currently works as a drain inspector and assists with drain maintenance projects for the Saint Clair County Drain Commissioner.

Terry Gill - Treasurer and Secretary

Terry Gill of Greenwood was Supervisor of Greenwood Township in Saint Clair County from 2004 through 2016. Terry is a strong advocate for land preservation with over 20 years of volunteer experience in non-profit organizations. She served on several boards in Saint Clair County, including the Water Quality Board, Farm Land Preservation Board, and Tri-Hospital EMS Board of Directors. For over 10 years, Terry coordinated the Mill Creek Volunteer Monitoring Project, an aquatic macroinvertebrate sampling program to assess and monitor the water quality of the Mill Creek, a major tributary of the Black River. She obtained multiple grants to produce and submit an annual Mill Creek monitoring report to the Michigan Department of Environmental Quality. Terry served as President of the Blue Water League of Women Voters and was the Natural Resources Chair for the Michigan League of Women Voters based in Lansing. As Natural Resources Chair, she represented the Michigan League of Women Voters on the board of the Michigan Environmental Council and obtained a grant from the Frey Foundation to produce and distribute a brochure entitled, "*Keeping This Land Ours*", a citizen guide to protecting natural areas.

Kay Cumbow - Director

Kay Cumbow of the Brown City area is a long-time environmental advocate. She is a director of Citizens for Alternatives to Chemical Contamination, a statewide organization working to protect the health of our communities and the Great Lakes. She also serves as a director of the Great Lakes Environmental Alliance, a grassroots organization based in Port Huron working to safeguard the environmental health of the Great Lakes Basin through education and community outreach. Kay was an active participant for several years in the Mill Creek Volunteer Monitoring Project, an aquatic macroinvertebrate sampling program to assess and monitor the water quality of the Mill Creek in Saint Clair County. Kay has an Associate of Arts degree from Kalamazoo Valley Community College and an Associate of Science degree from Mott Community College. She worked for many years as a licensed certified respiratory technician, and is now happily retired.

Dorothy Craig - Director

Dorothy Craig lives near the TLC Dead End Woods Sanctuary in Fort Gratiot Township and joined the TLC board in 2013. Dorothy has cared for animals her whole life and loves nature. Dorothy has encouraged and supported the work of the TLC since its formation in 2008.

Dr. Scott Ferguson - Director

Doctor Scott Ferguson grew up near the TLC Dead End Woods Sanctuary in Fort Gratiot Township and joined the TLC board in 2010. Doctor Ferguson has been in full-time dental practice since 1988, the year he earned his Doctorate of Dental Surgery from the University of Detroit. He is a member of the Thumb District Dental Society, the Michigan Dental Association, the American Dental Association, and the Port Huron Study Club, part of a nationwide network of affiliates under the Seattle Study Club. Doctor Ferguson has completed advanced training through the Misch Institute for Implant Training and is a Fellow in the International Congress of Oral Implantology. A Port Huron native and active supporter of many local associations, Scott lives in North Street with his son, Gabriel and daughter, Maya.

Daniel Rhein - Director

Dan Rhein of Port Huron grew up in China Township in Saint Clair County. He is a naturalist, wildlife expert, and a self-taught botanist possessing thorough knowledge of many obscure plant species, especially grasses and shrubs. Dan graduated from Michigan State University with a Bachelor of Science degree in Fisheries and Wildlife. For years, Dan has volunteered his time to provide nature education programs for the Blue Water Council Boy Scouts of America and local school children. Dan has long worked to promote natural areas in the Thumb, especially lakeplain prairie, wetlands, and aquatic habitats. He was a member of the Thumb Bioregional Alliance in the early 1990's, which advocated for the protection of land along the Black River near the Port Huron State Game Area, and the Minden Bog in Sanilac County. He has led several tours through the Minden Bog, being quite familiar with the unique bog vegetation. Dan taught an edible plants course for Willow Winds school of traditional skills and crafts near Mikado, Michigan. Dan is a very talented painter and has exhibited his work at Studio 1219 in Port Huron. He works for the Saint Clair County Drain Commissioner as a drain inspector and project supervisor.

Chris Walker - Director

Chris Walker grew up on a small farm near Crosswell, where his parents instilled in him a near-reverent appreciation for the land and its natural inhabitants. Chris is currently an Assistant Professor in the Communication Department at North Dakota State University. He earned a Master of Fine Arts in Cinema and Photography from Southern Illinois University and a Bachelor of Applied Arts in Journalism from Central Michigan University. As a photography professor, he has fulfilled full-time teaching and research appointments at Auburn University, Auburn, Alabama; Southern Indiana University, Evansville; and Loyola University Maryland in Baltimore. He has worked for several newspapers, including the Toledo Blade, where he and two coworkers earned a finalist spot in the Pulitzers, and has been published worldwide in numerous magazines, books, and journals. For 7 years, he was the Photography Columnist for Camping Life magazine. Chris is a naturalist and has a life-long interest in ecology, particularly through bird biology and stock nature photography. He was a Neotropical Migratory Research Technician for 2 years at Black Swamp Bird Observatory in Oak Harbor, Ohio. Chris is an artist and journalist with deep concerns for social anthropology and our ever-changing environment.

Fred Fuller - Director

Fred Fuller grew up in Yale, Michigan and has lived most of his life there, serving as Mayor of the City of Yale in 1990, 1991, and 1996. He earned a Bachelor of Arts from Albion College in English Literature and spent a semester in New York City working as an editorial assistant at The Paris Review literary magazine edited by George Plimpton. He has held a life-long interest in old cultures of the British Isles and has written several magazine articles on that subject. He was employed as a Field Director with the Michigan Nature Association in 1992 and 1993, exploring potential new preserve lands and helping edit the MNA's sanctuary guidebook. Fred co-founded the Thumb Bioregional Alliance in 1993, an association of environmentalists and others concerned about ecology and the quality of life in the Thumb region. He also co-founded the Mill Creek Coalition, the Black River Watershed Group and the Friends of Beards Hills, to help preserve important ecosystems in the Thumb. Fred served as the Saint Clair County Drain Commissioner from 1997 through 2008. As Drain Commissioner, he opposed the proposed full-scale dredging of Mill Creek, a major tributary of the Black River, and he helped negotiate a compromise restoration of the creek. He enacted the first storm water rules for Saint Clair County, initiated an illicit discharge elimination program on county drains, required wetland clearance for new development sites, and helped pioneer preservation of high-quality wetlands as mitigation for Michigan Department of Environmental Quality permits in Saint Clair County. Since 2009, Fred has been employed with Huron Consultants, LLC of Port Huron and Lapeer, Michigan, where he is currently the Water Resources Manager.

TLC Staff

William Collins - Executive Director

Bill Collins of Brown City - Marlette is a naturalist and botanist who grew up in the Port Huron area. He was a nature instructor at Silver Trails Scout Reservation summer camps from 1978 through 1986. He has an Associate of Science degree from Saint Clair County Community College and graduated from Michigan State University in 1987 with a dual Bachelors of Science degree in Botany and Natural Resources Development while also following the engineering program. From 1984 through 1986 he was a Program Assistant with the Michigan Chapter of The Nature Conservancy in East Lansing, and later worked on various contract projects for the Michigan Department of Natural Resources Wildlife Division. He is a Life Member of the Michigan Nature Association and explored natural areas for MNA in 1988 through 1990. Bill has worked as a professional wetland consultant and ecologist since 1990, employed 8 years as a botanist and project manager with SSOE, Inc., a large architectural and engineering firm in Troy, Michigan, and since 1998 with his own consulting firm, Huron Ecologic, LLC. In his capacity as a private consultant, he has encouraged and helped local governments and individuals preserve high quality natural areas. Bill and his wife, Cheryl, have been very active in promoting the protection of natural areas and rare species throughout the region, including Michigan Endangered Painted Trillium, a rare woodland wildflower that is now known only from Saint Clair County in all of Michigan.

TLC Service Providers

TLC Legal Counsel

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Port Huron, Michigan 48060
810-987-3970
LozenLaw.com

TLC Financial Institution

Tri-County Bank
4190 Main Street
Brown City, Michigan 48416
810-346-2745
Tri-CountyBank.com

TLC Liability Insurance

Conserv-A-Nation Insurance Program
Underwritten by Chubb Group of Insurance Companies
Alliant Insurance Services, Inc.
Franey Muha Commercial Group
4530 Walney Road, Suite 200
Chantilly, Virginia 20151
703-397-0977
AlliantInsurance.com

TLC Accountant

Cathy Rovano
5626 Ortman Drive
Sterling Heights, Michigan 48314

TLC Web Site Host - ThumbLand.org

Jeff Ronan
LochánDé IT Services, LLC
Port Huron, Michigan 48060
810-334-4119
jeff@lochandeit.com
LochanDeIT.com

TLC Corporation

TLC Web Site

ThumbLand.org

TLC Contacts

mailing address:

Thumb Land Conservancy
4975 Maple Valley Road
Marlette, Michigan 48453 USA

phone: 810-346-2584

e-mail: mail@ThumbLand.org

TLC Incorporation Documents

IRS Employer Identification Number: 41-2247569

IRS Employer Identification Number Assigned: 2007 August 13

Michigan Corporation Identification Number: 70398K

Michigan Articles Of Incorporation Filed: 2008 October 29

Michigan Articles Of Incorporation Effective Date Of Approval: 2008 October 29

IRS Effective Date Of Tax Exemption: 2008 October 29

IRS 501(c)(3) Tax Exempt Status Confirmed: 2009 February 26

Michigan Corporate Entity Documents:

[https://cofs.lara.state.mi.us/CorpWeb/CorpSearch/CorpSummary.aspx?
ID=800918673&SEARCH_TYPE=1](https://cofs.lara.state.mi.us/CorpWeb/CorpSearch/CorpSummary.aspx?ID=800918673&SEARCH_TYPE=1)

IRS Search for Charities, Online Version of Publication 78:

[https://apps.irs.gov/app/eos/pub78Search.do?ein1=41-
2247569&names=&city=&state=All...&country=US&deductibility=all&dispatchMethod=searchCharities&
submitName=Search](https://apps.irs.gov/app/eos/pub78Search.do?ein1=41-2247569&names=&city=&state=All...&country=US&deductibility=all&dispatchMethod=searchCharities&submitName=Search)

TLC Memberships and Affiliations

Clyde Historical Society

7293 Beard Road

Clyde, Michigan 48049

810-824-0726

<https://www.facebook.com/groups/1481890455361159/about/>

Blue Water Indigenous Alliance

8749 Lakeshore Road

Burtchville, Michigan 48059

248-506-7172

TLC Balance Sheet

Thumb Land Conservancy Balance Sheet 2021 December 31

Current Assets	
Checking/Savings	
Tri-County Bank	27,583.47
Total Checking/Savings	27,583.47
Total Current Assets	27,583.47
Fixed Assets	
Land	
Dead End Woods Sanctuary	0
Gerrits Sanctuary	48,972.00
Peltier Beach Ridge Sanctuary	0
North Street Property	9,500.00
Bertha's Haven Sanctuary	0
Loznak Sanctuary	0
Bidwell Sanctuary	278,000.00
Tranquil Ridge Sanctuary	10,000.00
Total Fixed Assets	346,472.00
Total Assets	374,055.47
Liabilities and Equity	
Equity	
Opening Balance Equity	374,055.47
Total Equity	374,055.47
Total Liabilities & Equity	374,055.47

TLC US Tax Returns

Annual tax returns of the Thumb Land Conservancy are available at the following IRS web site:

<https://apps.irs.gov/app/eos/detailsPage?ein=412247569&name=Thumb%20Land%20Conservancy&city=Marlette&state=MI&countryAbbr=US&dba=&type=CHARITIES,%20DETERMINATIONLETTERS,%20EPOSTCARD&orgTags=CHARITIES&orgTags=DETERMINATIONLETTERS&orgTags=EPOSTCARD>

2020 IRS Form 990 Tax Return Summary	
Total Revenue	296,214
Total Expenses	282,109
Net Income	14,105
Revenue	
Contributions	295,314
Wetland Stewardship	900
Total Revenue	296,214
Expenses	
Bidwell Sanctuary Purchase	279,424
Loznak Sanctuary Phase 1 EA	750
Title Search	250
Local Tax Assessments	152
Liability Insurance	1,033
Web Hosting and IT	500
Total Expenses	282,109
Net Income	14,105
<p>Net income of \$14,105 was applied to the Bidwell Sanctuary stewardship endowment fund. No staff were paid in 2020. 94.5% of TLC revenue was used for preserve acquisition. 5% of TLC revenue was used for preserve stewardship, with most stewardship provided as volunteer service. 0.5% of TLC revenue was used for administrative cost.</p>	

TLC Properties

Dead End Woods Sanctuary or Makadewagmitiggweyainniwak, meaning *Black River Tribal People* in Annishinaabemowin

17.6 Acres, Fort Gratiot Township, Saint Clair County

Acquisition Date: 2008 December 30

North Parcel 74-20-030-2009-000: Beginning North 660.34 Feet From The East Quarter Corner, Thence N89°37'00"W 229.00 Feet; Thence S00°00'00"E 130.17 Feet; Thence N89°37'00"W 189.00 Feet; Thence S00°00'00"E 200.00 Feet; Thence N89°37'00"W 920.79 Feet; Thence N00°00'00"E 330.18 Feet; Thence S89°37'00"E 691.79 Feet; Thence N00°00'00"E 70.00 Feet; Thence S89°37'00"E 647.00 Feet; Thence S00°00'00"E 70.00 Feet To Beginning. Section 30, Town 7 North, Range 17 East, 8.59 Acres.

South Parcel 74-20-030-2012-000: Part Of The Northeast Quarter Of Section 30, Town 7 North, Range 17 East, Fort Gratiot Township, St. Clair County, Michigan; Described As Commencing At The East Quarter Corner Of Said Section; Thence N00°00'00"E 97.00 Feet Along The East Section Line To The Point Of Beginning; Thence N89°44'42"W 225.00 Feet; Thence S00°00'00"E 97.00 Feet; Thence N89°44'42"W 537.54 Feet Along The North Line Of Spruce Village; Thence N89°47'58"W 575.76 Feet Along The North Line Of Ferguson Heights; Thence N00°02'55"E 320.95 Feet Along The East Line Of Angus Campbell Number One; Thence N00°07'02"E 12.77 Feet Along The East Line Of Plat Number 5 Of The Old Farm Subdivision; Thence S89°37'00"E 1113.04 Feet; Thence S00°00'00"W 130.78 Feet; Thence S89°17'00"E 225.00 Feet; Thence S00°00'00"W 101.08 Feet To The Point Of Beginning. Containing 9.01 Acres.

The Dead End Woods Sanctuary was the first preserve acquired by the TLC, in December 2008. The woods is known locally as the "dead end woods" because it is located and accessed at the dead end of Wilson Drive in Fort Gratiot Township. The preserve is located between Wilson Drive and Blueberry lane to the south, State Road to the east, and Old Farm subdivision to the north.



The 17.6-acre Dead End Woods Sanctuary contains about 11.6 acres of swamp forest wetland, part of the headwaters of the Gossman Drain which flows east and south to the Black River. Both the wetland and the upland on the sanctuary were preserved as partial mitigation for wetland impacts permitted by the Michigan Department of Environmental Quality for the 2008 Bunce Creek and Huffman Drain project of Saint Clair County Drain Commissioner, Fred Fuller. The Dead End Woods Sanctuary is protected by a conservation easement held by the State of Michigan. As mitigation options for the drain project were being considered, the owner of one of the Dead End Woods parcels offered to sell the land to the Drain Commissioner at a reasonable price. The MDEQ confirmed the presence of a large amount of wetland on the property and

determined that it is part of a high quality plant community. The adjacent parcel was then purchased to provide the necessary wetland mitigation for the drain project. To satisfy MDEQ requirements for long-term monitoring and stewardship of the wetland, ownership of the two Dead End Woods parcels was transferred to the TLC, relieving the Drain Commissioner from further responsibility for this land. In accepting ownership of the property, the TLC agreed to be responsible for submittal of an approved management plan to the MDEQ, annual monitoring of the conservation easement, long-term stewardship, and submittal of annual monitoring reports to the MDEQ.



Forest of the Dead End Woods Sanctuary.



Swamp wetland in the Dead End Woods Sanctuary.

The Dead End Woods is a highly diverse forest community of southern swamp and mesic upland on Wainola-Deford fine sands deposited on the glacial lakeplain. The swamp is dominated by Silver Maple and Red Maple hybrids, Green Ash (large trees now dead due to the Emerald Ash Borer), American Hornbeam, Spicebush, Sensitive Fern, Royal Fern, Jack-in-the-pulpit, and Marsh-marigold. The upland is dominated by Red Maple, Red Oak, Sassafras, Black Cherry, Witch-hazel, Mayapple, Wild Geranium, and Yellow Trout-lily. At 44.5, the Floristic Quality Index of the Dead End Woods is very high, indicating a natural area of statewide significance. Higher quality or interesting species include Maidenhair Fern, Spikenard, Richweed, American Hazelnut, Black Ash, Butternut, Spicebush, Tuliptree, Cardinal Flower, Indian Pipe, Black Gum, Sycamore, Christmas Fern, Broad-leaved Goldenrod, Foamflower, and Eastern Hemlock.



Tuliptree sapling in the Dead End Woods Sanctuary.



Spikenard in the Dead End Woods Sanctuary.

A 1937 aerial photograph shows most of the Dead End Woods forest cover was intact, probably because the land was simply too wet to farm. As a result, many species are relict from before European settlement. In 1997 and 1998, the previous owners selectively cut large trees throughout the forest, which drew protests from neighbors who thought the site was being prepared for residential development. Despite this cutting and heavy soil disturbance, the forest vegetation remained intact. While the opened canopy supported the invasion of Garlic Mustard, it also favored uncommon species like Tuliptree, American Hazelnut, and Spikenard.

Uncommon animal species observed on the Dead End Woods Sanctuary include Flying Squirrels, Barred Owls, Pileated Woodpeckers, Wood Ducks, Spring Peeper frogs, Wood Frogs, and Red-backed Salamanders. Aquatic macroinvertebrates observed in the wetter portions of the swamp include caddisfly larvae, fairy shrimp, crayfish, pond snails, clam shrimp, water striders, and various protozoa, all generally indicating high water quality.

Entrance to the Dead End Woods Sanctuary is from at the dead end of Wilson Drive and also a shared driveway at 3745 State Road, between the 4th and 5th houses north of Blueberry Lane. Visitors must be careful not to block driveways or the fire hydrant at the end of Wilson Drive.

Gerrits Sanctuary or Wabisiwisiwinniwak, meaning *Swan Creek Tribal People* in Annishinaabemowin

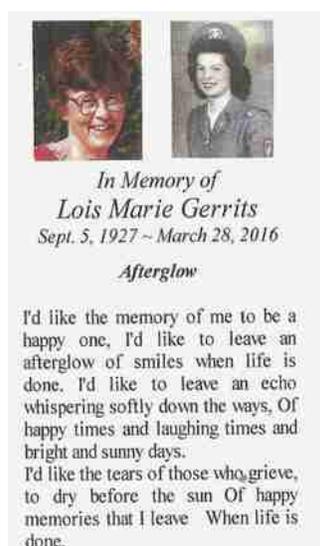
38.5 Acres, Ira Township, Saint Clair County

Acquisition Date: 2009 July 16

Parcel 74-23-007-1003-000: The Northwesternly 38.5 Acres Of The Southwesterly ½ Of The Northeastery ½ Of Private Claim 627. Section 7, Town 3 North, Range 15 East. 38.5 Acres.

On July 16, 2009, the TLC acquired its second nature preserve, the Gerrits Sanctuary, a generous donation from Lois Gerrits, wife of the late Dr. James F. Gerrits. The closing was held at the Law Offices of Timothy J. Lozen, with attorney Anna Kovar <http://www.lozenlaw.com/> and TLC executive board members William Collins and Terry Gill present. Ullenbruch Flowers and Gifts of Port Huron <http://www.ulenbruchflower.com/> kindly donated a bouquet of flowers to express our appreciation to Mrs. Gerrits.

Dr. James Gerrits was well known in Saint Clair County. He was co-pilot of a bomber in World War II, and later a fighter and test pilot. Because of his war experiences, he became an outspoken critic of war. He and Lois twice voluntarily went to Vietnam in the 1960's, sponsored by the U.S. Department of State and Catholic Church, to provide civilian medical care to the people of both South and North Vietnam. Lois shared several stories about those times after our closing.



Gerrits siblings at the 2011 November 26 sanctuary dedication.



The Gerrits Sanctuary is 38.5 acres located along the east boundary of the City of New Baltimore, only about $\frac{3}{4}$ mile north of Anchor Bay and Lake Saint Clair. The southern half of the sanctuary is a complex of mature mesic and swamp forest. The north half is old-field and the Crapaud Creek Drain runs through the north end of the preserve. Years ago, the property was part of the Gerrits family farm.



Upland and swamp forest on the Gerrits Sanctuary.

The forest on the Gerrits Sanctuary is an impressive mix of southern swamp and mesic upland containing plant populations relict from centuries ago. Dominant vegetation in the extensive wetlands includes Silver Maple, Green Ash (all large trees dead due to the Emerald Ash Borer), Eastern Cottonwood, American Elm, Cinnamon Fern, and various sedges. The upland forest is a mature and species-rich southern forest community of American Beech, Sugar Maple, Red Oak, White Oak, Black Cherry, American Basswood, Tuliptree, Yellow Birch, Mayapple, White Trillium, Wild Geranium, Canada Mayflower, Spinulose Woodfern, Jack-in-the-pulpit, Solomon's-seal, Yellow Trout-lily, and Spring Beauty among many other forest herbs. Along the southwestern boundary of the sanctuary, the vegetation on moist sand tip-up mounds is distinctly northern with clubmosses, Wild Sarsaparilla, Starflower, and Goldthread. Some areas look surprisingly like habitat for Michigan Endangered Painted Trillium – *Trillium undulatum*, currently known only from the Port Huron area.



Upland forest with large Black Cherry, American Beech, and Sugar Maple on the Gerrits Sanctuary.

The Gerrits Sanctuary is part of one of the largest and least fragmented forest tracts remaining along the Great Lakes coastline from Ohio north through the Algonac area. The larger forest is nearly 300 acres, of which the Gerrits Sanctuary includes only about 20 acres of that forest, or about 7% of it. At the southern limit of the forest along M-29, it is within 1,000 feet of Anchor Bay. Near-shore natural areas are critical for migratory birds and insects that move along the Great Lakes. The Gerrits Sanctuary provides habitat both for migratory woodland birds and for migratory insects, like butterflies, in the old-field on the north half of the preserve.

Official entrance to the Gerrits Sanctuary is from near the end of Sienna Oaks Drive to the north. With permission from park management, the sanctuary may also be accessed through The Shores at Anchor Bay modular park along the east and south boundaries:

<https://www.facebook.com/TheShoresAtAnchorBay/>



Birthday nature walk for Lois and James Gerrits' granddaughter, Rose, on 2014 May 18.

Peltier Beach Ridge Sanctuary or Ke'Ya Makoce, meaning *Turtle Land* in Lakota

11.5 Acres, Fort Gratiot Township, Saint Clair County

Acquisition Date: 2010 June 28

Parcel 74-20-004-1058-000: A parcel of land being a part of the Northwest $\frac{1}{4}$ of Fractional Section 4 and the Northeast $\frac{1}{4}$ of Fractional Section 5, T7N, R17E, Fort Gratiot Township, St. Clair County, Michigan and described as: Commencing at the East $\frac{1}{4}$ corner of said Fractional Section 5; thence N. $89^{\circ} 38' 30''$ W. 656.67 feet along the East and West $\frac{1}{4}$ line of said Fractional Section 5; thence N. $00^{\circ} 12' 07''$ E. 1145.13 feet to the point of beginning of this description; thence continuing N. $00^{\circ} 12' 07''$ E. 648.12 feet; thence N. $89^{\circ} 59' 07''$ E. 853.62 feet; thence S. $09^{\circ} 03' 53''$ E. 363.81 feet; thence N. $89^{\circ} 15' 00''$ W. 101.00 feet; thence S. $09^{\circ} 03' 53''$ E. 101.00 feet; thence N. $89^{\circ} 15' 00''$ W. 299.26 feet; thence S. $00^{\circ} 07' 00''$ E. 200.50 feet; thence N. $89^{\circ} 15' 00''$ W. 82.00 feet; thence S. $00^{\circ} 07' 00''$ E. 1.00 feet; thence N. $89^{\circ} 15' 00''$ W. 447.36 feet to the point of beginning of this description. Said parcel contains 11.47 acres, more or less.

On June 28, 2010, the TLC received its third nature preserve, the 11.5-acre Peltier Beach Ridge Sanctuary in Fort Gratiot Township, Saint Clair County. The parcel was given to the TLC by Ray and Nancy Peltier to satisfy State of Michigan requirements, then briefly administered through the Michigan Department of Natural Resources and Environment, for the long-term protection of 6.3 acres of wetland on the property, preserved as mitigation for 0.63 acre of wetland to be impacted by an expansion of the Hamzavi Dermatology office in Fort Gratiot: <https://www.hamzaviderm.com/>. The Peltier's worked out a deal with Dr. Syed Hamzavi to preserve the wetland and adjoining upland on their property as mitigation for the Hamzavi Dermatology project. As with our first preserve, the Dead End Woods Sanctuary in Fort Gratiot, the Peltier Beach Ridge Sanctuary is protected by a State of Michigan conservation easement. In accepting ownership of the mitigation property, the TLC agreed to be responsible for submittal of an approved management plan, annual monitoring of the conservation easement, long-term stewardship, and submittal of annual monitoring reports to the MDNRE, now the Michigan Department of Environmental Quality again.



The Peltier Beach Ridge Sanctuary is located a few hundred feet south of the end of West Montevista Drive, south of Metcalf Road, and along the east side of the Detroit Water Board property. The intake pipes from Lake Huron for the Detroit Water facility are very near the north property line. Also just north is the Galbraith Plant Preserve owned by the Michigan Nature Association, and four small lots north of the MNA preserve, owned by the Saint Clair County Drain Commissioner to be preserved as wetland mitigation for a future project. Although some people use the Detroit Water line property to enter the sanctuary from East Montevista Drive, the actual entrance is from North Shoreview Drive, just east of the intersection with San Juan Drive.

The Peltier Beach Ridge Sanctuary is a small part of a much larger and ecologically unique beach ridge and swale landscape formed thousands of years ago along portions of the early Great Lakes shoreline as water levels dropped, rose again, and then dropped to modern levels after the last glacial period. The beach ridge and swale landscape in this part of the Thumb is a long, narrow formation within about 1 mile of the Lake Huron shoreline, extending from Port Huron into Sanilac County. The landscape began forming about 11,500 years ago as the last stages of the Wisconsinan glacier melted back and early Lake Huron was about 30 feet higher than today. About 1,500 years later, the melting glacier uncovered a new outlet from the Georgian Bay and the water dropped over 400 feet. The massive weight of glacial ice depressed the earth's crust for thousands of years, but as it melted, the crust slowly rose and continues today. By 4,500 years ago, the drainage outlet from Georgian Bay raised such that early Lake Huron filled to the Lake Nipissing stage and back to the old shoreline of 7,000 years previous. Great Lakes drainage was gradually limited to the Mississippi River through the old Chicago outlet, and then to the current Saint Clair River outlet, which rapidly down-cut and lowered the Great Lakes to modern levels, leaving a series of beach ridges as the water dropped.



Beach ridge and swale landscape in Fort Gratiot and Burtchville Townships.

In the southern Thumb, the beach ridge and swale landscape is restricted to a narrow strip along Lake Huron in Saint Clair County, in Fort Gratiot and Burtchville Townships, and some small patchy occurrences in Sanilac County. The landscape is much more extensive in Huron and Tuscola Counties along the Saginaw Bay, especially near Port Crescent State Park. In Saint Clair County, it originally covered less than 1% of the total land area, and has since been significantly reduced by commercial and residential development. The landscape consists of a series of upland sand ridges and mucky wetland troughs or swales between. In Saint Clair County, the sand ridges average about 40 to 50 feet wide and 3 to 4 feet above the adjoining swales. The swales are usually about as wide as the ridges, but some are a few hundred feet wide. The largest and oldest beach ridge runs continuously along the western limit of the landscape, furthest inland from Lake Huron. This ridge was over 500 feet wide across most of its extent and may have been over 30 feet high in some areas. Although much of it has been mined out, this big sand ridge is still largely intact through Lakeside Cemetery and into Port Huron near the Blue Water Bridges where it is about 15 feet higher than adjoining land. Centuries ago, this ridge served as a burial ground for Native American inhabitants whose burial mounds have been found near Port Huron. The beach ridge and swale landscape provides not only unique habitat, but also a unique record of Michigan's post-glacial past.

Most of the Peltier Beach Ridge Sanctuary is forested, except a large trail that runs through the western part of the preserve, and portions of the sand ridges to the east. Like most of the landscape, the wetland swales are covered by Silver Maple, Green Ash and Black Ash, the larger ash trees now all dead due to the Emerald Ash Borer, Eastern Cottonwood, and American Elm. The upland beach ridges are covered largely by Black Cherry, Big-tooth Aspen, and American Basswood, with scattered Black Oak and a few Arbor Vitae. The lower ridge bases are lined with Paper Birch and covered by an unusual concentration of Alternate-leaved Dogwood.

Much of the beach ridge and swale landscape in Saint Clair County was impacted years ago by logging, clearing, draining, livestock grazing, and sand mining. Because the surrounding forest as a whole has either been degraded or eliminated, subsequent forest species recruitment has been severely diminished, which has limited the return of many forest plants and therefore, the recovery of a mature forest community. The dominance of invasive species like Tartarian Honeysuckle, Common Privet, and Garlic Mustard has further displaced mature forest species.

Despite so many impacts, the landscape still contains high quality habitat with several unique species. Like other parts of the landscape, a few sand ridges on the Peltier Beach Ridge Sanctuary contain small patches of Purple-flowering Raspberry, the Lower Peninsula's equivalent of the Upper Peninsula's Thimbleberry, with large flowers and large raspberry fruits that actually fit over a finger like a thimble. Purple-flowering Raspberry is thought to be native to only seven shoreline counties in Michigan. The species is so restricted to this habitat in Saint Clair County that it's symbolic of it.



Purple-flowering Raspberry and Yellow Lady's-slipper orchid near the Peltier Beach Ridge Sanctuary.

Yellow Lady's-slipper orchid grows in a variety of habitats, but in Saint Clair County is largely restricted to the moist ridge bases and mucky swales of this landscape. Several Yellow Lady's-slipper orchids have been found on the Peltier Beach Ridge Sanctuary.

The Eastern Hog-nosed Snake is a special reptilian inhabitant that has been found just a few hundred feet south of the Peltier Beach Ridge Sanctuary. They prefer the more open sand of dunes and disturbed ground such as along the south end of the sanctuary. When aggravated, the snakes flatten their necks like a cobra, and then sometimes roll over and play dead with their mouths hanging open. They can look imposing, but are harmless. The Eastern Hog-nosed Snake is more common in the southern plains and southeastern US, but is considered to be at some risk of extirpation in the Great Lakes region, Ontario, and New England.



Eastern Hog-nosed Snake captured and photographed by Ray Peltier, just south of the Peltier Beach Ridge Sanctuary.

One of the most critical functions of this coastal forest habitat is the support it provides to an abundance of migratory birds as they move north and south along the Lake Huron shoreline. The spring and summer breeding bird population is very abundant and diverse in this area, especially the forest warblers. Several species of warblers have been identified on the Peltier Beach Ridge Sanctuary.



American Redstart warbler just south of the Peltier Beach Ridge Sanctuary.

The Peltier Beach Ridge Sanctuary is a high quality wetland and upland complex with a unique geologic history, unique plant and animal community, significant Great Lakes coastal habitat, good restoration potential, and a great addition to the TLC preserve lands. The beach ridge and swale landscape is a high priority for the TLC and we continue working to promote preservation of this area.

North Street Station

5220 North Road, North Street, Michigan
0.5 Acre, Clyde Township, Saint Clair County
Acquisition Date: 2016 August 02

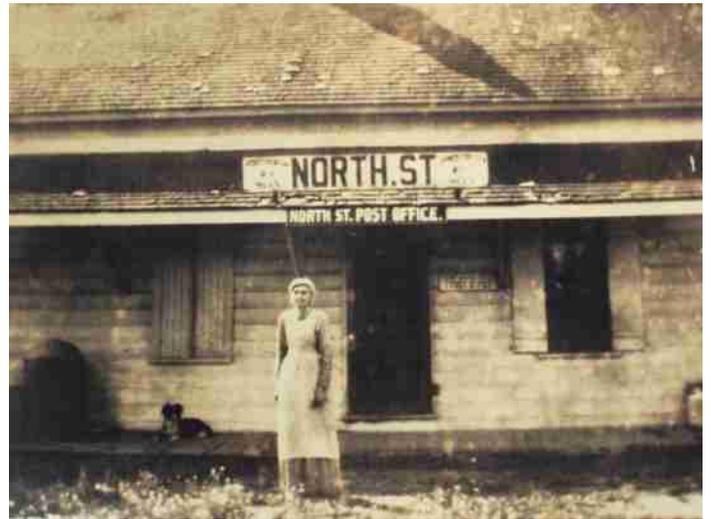
Parcel 74-15-012-3006-000: All that part of the North ½ of the Northwest ¼ of the Southeast ¼ lying south of the Pere Marquette Railroad right-of-way and containing 0.5 acre in Section 12, T7N R16E

On August 2, 2016, the TLC purchased the old general store, post office, and rail station in North Street through the Saint Clair County tax auction. This historic structure would have been demolished if not acquired by a preservation group. The North Street station is one of only two remaining stations between Port Huron and Crosswell along the old Port Huron and Northwestern Railway which opened in 1879. The main line ran from Port Huron to Saginaw, with branches to Sandusky, Port Hope, and Port Austin. The line became part of the Pere Marquette Railroad in 1889. The main structure on the North Street site probably dates back to at least 1889, but was later partially modified in the mid 1940's to serve as a residence.

The TLC is partnering with the Clyde Historical Society to protect the structure and fundraise for restoration. We are currently restoring the exterior and plan to install signs describing the history of the site. Eventually, we would like to restore the interior, display related historical artifacts, and open it for meetings and public events.



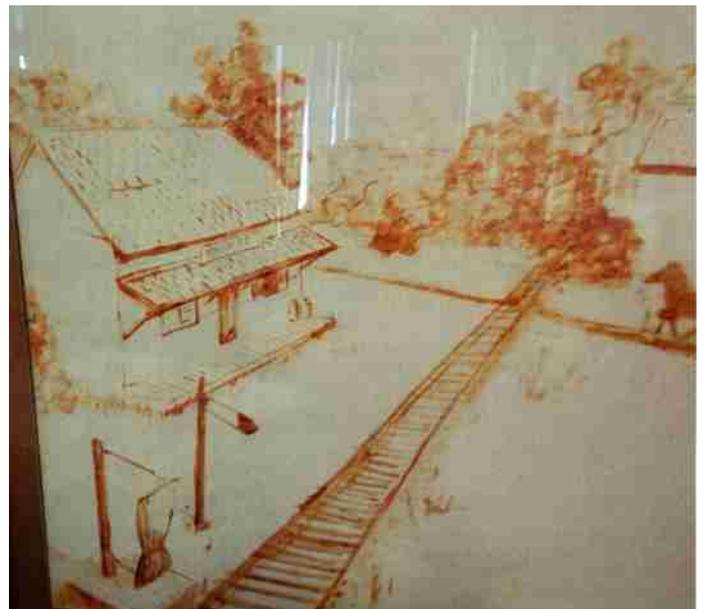
South side of the North Street Station during roof repair in the spring of 2017. The large window was installed and other modifications were made in the mid 1940's to upgrade the structure as a residence.



The North Street Station circa 1930 showing the north side, facing the railroad tracks. A proprietor of the general store and post office stands in front, with a dog on the porch behind.



The North Street Station circa mid 1930's showing the south side from North Road. The lower room to the east was added to the original structure.



A drawing of the North Street Station as it appeared circa 1900 showing the north side and adjacent railroad. A mail pouch is hanging at the lower left. A horse is shown to the far right on North Road.



Left: A portion of an 1899 map showing the Pere Marquette Railroad line from Port Huron through North Street and beyond.

**Bertha's Haven Sanctuary or Mindimooyenh, meaning
An Elder Woman of Great Respect in Annishinaabemowin
0.62 Acre, Fort Gratiot Township, Saint Clair County
Acquisition Date: 2019 September 27**

Parcel 74-20-004-1057-000: West 175 feet of South 154 feet of that part of the East ½ of the Northeast ¼ of the Northeast ¼ lying North of the extended North line of Roosevelt Avenue in Section 5, T7N, R17E, 0.62 acre

On September 27, 2019, the TLC accepted ownership of the Galbraith Plant Preserve from the Michigan Nature Association (MNA). The preserve is located only about 150 feet north of our Peltier Beach Ridge Sanctuary, in the same beach ridge and swale landscape along Lake Huron in Fort Gratiot and we have been watching over it when we go out to the Peltier Sanctuary. MNA founder and director, Bertha Daubendiek, established this preserve back in 1972 as a place to transplant native wildflowers from the adjacent Detroit Water Board property before the Lake Huron water intake facility was constructed. The TLC renamed the preserve in honor of Bertha Daubendiek, to "Bertha's Haven", borrowing part of an older name for the preserve.



Bertha's Haven Sanctuary in yellow boundaries just north of the Peltier Beach Ridge Sanctuary.



Left: Bertha Daubendiek (center) on the shore of Lake Superior in 1969. Right: Bertha Daubendiek (bottom center) exploring the western Upper Peninsula in 1970 with MNA board members Thelma Sonnenberg and Rita Juckett, and biology student guides from Michigan Technological University.

For more information about Bertha Daubendiek and the Michigan Nature Association, see these articles written by TLC Executive Director, William Collins:

http://www.huronecologic.com/thumb_habitats022004.htm

http://www.huronecologic.com/thumb_habitats032004.htm

Loznak Sanctuary or Yänhdawa' yeh de yenhta' iyaen', meaning *The Prairie is Near the River* in Huron-Wendat

Honoring Charles and Elizabeth Loznak

11.5 Acres, City of Marysville, Saint Clair County

Acquisition Date: 2019 December 18

9.3 acres of Parcel 74-03-092-0025-000: Lots 19 and 20 and Lot 21, except the South 200 feet of "ASSESSOR'S PLAT OF DOW ADDITION TO THE CITY OF MARYSVILLE, MICHIGAN", according to the plat thereof as recorded in Liber 55 of Plats, page 7, St. Clair County Register of Deeds Office.

2.2 acres of Parcel 74-03-092-0023-000: Westerly 350 feet of Lot 18, "ASSESSOR'S PLAT OF DOW ADDITION TO THE CITY OF MARYSVILLE, MICHIGAN", according to the plat thereof as recorded in Liber 55 of Plats, page 7, St. Clair County Register of Deeds Office.

On December 18, 2019, the TLC accepted donation of the 11.5-acre Loznak Sanctuary, along with a small endowment fund, from Loznak Real Estate Enterprises, LLC. The Loznak Sanctuary honors the memory of Charles and Elizabeth Loznak. The sanctuary is located adjacent to an industrial area along Wills Street in Marysville, east of Busha Highway in Marysville.



Oblique view of the Loznak property donation in yellow boundaries.

The Loznak Sanctuary is adjacent to the old Port Huron and Detroit Railroad line with an old rail spur running through the middle of the sanctuary. It is also adjacent to approximately 26 acres of unusual ridge and swale forest with an interesting alluvial origin along the Saint Clair River dating back almost 5,000 years ago. Despite the impact of previous industrial use connected with a World War II munitions factory, the Loznak Sanctuary is a nice recovering natural area with patches of young forest interspersed with the remains of concrete foundations reminiscent of monuments. The east half of the sanctuary contains lakeplain prairie vegetation with uncommon species such as Riddell's Goldenrod - *Solidago riddellii*, Fringed Gentian - *Gentianopsis crinita*, and Mountain Mint - *Pycnanthemum virginianum*. Historic aerial photographs and mapping show that, other than limited use of the property appearing to begin and end with World War II, the land appears to have been generally undisturbed. A 1937 aerial photograph shows the Loznak Sanctuary and vicinity was completely vacant and part of a large swath of mostly open land along the Saint Clair River which may have been farmed. Similar lakeplain prairie habitat in the Marysville area, where land use was not so intensive, serves as refugia for plants remnant of original populations that existed prior to European settlement. Michigan Threatened Sullivant's Milkweed – *Asclepias sullivantii*, a rare lakeplain prairie plant found in only 8 southeast counties in Michigan, is known from several locations in the Marysville area.



Left: Old-field with lakeplain prairie vegetation and railroad spur. Right: Part of a concrete foundation.



Remnants of a concrete foundation amongst Paper Birch trees on the Loznak Sanctuary.

We are still discussing options and plans for this new sanctuary with potential partners, including the Port Huron and Detroit Railroad Historical Society (<http://phdrailroad.com/>). We envision the Loznak Sanctuary as a small park highlighting the interesting combination of natural area, World War II industrial history, and railroad history relating to the old Port Huron and Detroit Railroad, now owned by CSX Transportation, running along the west side of the sanctuary and the rail spur connecting to it. Our thanks to Loznak Real Estate Enterprises, attorney Tim Lozen, and Jim Hollenbeck of EH&S Services for completing the phase 1 environmental assessment (<https://www.facebook.com/EHS-Services-246483582068278/>).

**Bidwell Sanctuary or Chëkhònèsink hìtkwike schind lèkuwake,
meaning *Place Among Hemlock Trees on Sandy Ground Where
There is Sound of Waves Breaking* in Lenape**

42.1 Acres, Burtchville Township, Saint Clair County

Acquisition Date: 2020 July 17

Parcel 74-11-032-3003-000: East 810.2 feet of the Southeast ¼ excepting the East 275 feet of the North 683.3 feet and excepting the South 200 feet of the East 200 feet of the West 744.2 feet and excepting Plat Number 1 of Lakeshore Woods. Section 32, T8N R17E. 41.45 acres.

Parcel 74-11-480-0001-000: Lot 1 of Plat Number 1 of Lakeshore Woods. 0.65 acre.

On July 17, 2020, the TLC purchased the 42.1-acre Bidwell Sanctuary located in the beach ridge and swale complex of Burtchville Township. Acquisition of the Bidwell Sanctuary was a major preservation accomplishment for the TLC on behalf of the Blue Water Area. Major project funders included The Carls Foundation of Bloomfield Hills, the Community Foundation for Southeast Michigan, the Consumers Energy Foundation, Cargill, Inc. and Cargill Salt of Saint Clair, the Community Foundation of St. Clair County, the Franklin H. and Nancy S. Moore Donor Advised Fund of the Community Foundation of St. Clair County, and SEMCO Energy Gas Company of Port Huron.



Eastern Hemlock tree and beach ridge on the Bidwell Sanctuary. Wetland swale in background.



Wetland swale on the Bidwell Sanctuary.



Wetland swale on the Bidwell Sanctuary.



Along the new coastal trail on the Bidwell Sanctuary.

The new Bidwell Sanctuary in Burtchville Township is a very important part of the proposed Southern Lake Huron Coastal Park, a band of several preserves and parks extending along Lake Huron through Fort Gratiot and Burtchville Townships. The preserves are generally inaccessible to the public and somewhat disconnected from each other, but not by much. With a little effort, we are within reach of creating a continuous 4.5-mile coastal park connecting the Port Huron area to Lakeport State Park. The Southern Lake Huron Coastal Park would encompass most of the remaining beach ridge (or dune) and swale complex along the eastern shoreline of Michigan's Thumb region, a linear forested greenway connecting Port Huron with shoreline communities into Sanilac County. This coastal forest zone is well-suited for a recreational walking and biking trail with interpretive signage. The beach ridge and swale complex along Lake Huron is a big part of what makes the Blue Water Area unique and a desirable place to visit and live. Yet, few understand the character and significance of this land because there is very limited public access to it. Routing a trail through the interior of this coastal forest corridor will provide a great opportunity for recreation, providing a small wilderness experience within just a few miles of Port Huron.

As proposed, the coastal trail would pass through at least two TLC preserves, the Peltier Beach Ridge Sanctuary and future Bidwell Preserve. Currently, most of the preserves to be included in the larger park are difficult, if not impossible, for the public to access without trespassing on adjoining properties. The proposed Southern Lake Huron Coastal Park and trail would open most of these preserves to the public. Once connected, the Southern Lake Huron Coastal Park is likely to become a regional destination for bicyclists, birders, naturalists, and other visitors.

In early 2018, the TLC began renewed efforts to acquire key parcels needed to complete a 4.5-mile coastal park along Lake Huron, connecting Port Huron to Lakeport State Park. The proposed Southern Lake Huron Coastal Park will eventually protect most of the remaining beach ridge and swale complex along the eastern shoreline of Michigan’s Thumb region. This important coastal forest habitat supports rare species found in few other regions and is vital for migratory birds that move and nest along Lake Huron.

- 1 Mehta Preserve
- 2 Fort Gratiot County Park
- 3 MNA Galbraith Preserve
- 4 TLC Peltier Beach Ridge Sanctuary
- 5 St. Clair County Drain Commissioner Water Works Preserve
- 6 Blue Water Development Preserve
- 7 St. Clair County Drain Commissioner Shorewood Forrest Preserve
- 8 St. Clair County Drain Commissioner Shorewood Forrest Preserve
- 9 Shorewood Forrest Preserves (3)
- 10 Presbyterian Villages Lake Huron Woods Preserve
- 11 Fort Gratiot Nature Park

The future Southern Lake Huron Coastal Park is located on an ancient coastal landscape of parallel beach ridges and wetland swales with rare species unique to the Blue Water Area.

The coastal forest is vital for migratory birds that move and nest along Lake Huron.

When completed, the park will feature a nearly 4 mile trail.

Thumb Land Conservancy
42-Acre Bidwell Preserve Acquisition

Part of the Southern Lake Huron Coastal Park
 Connecting Fort Gratiot to Lakeport State Park

Thumb Land Conservancy
 ThumbLand.org • 810-346-2584 • mail@ThumbLand.org

The effort to protect large tracts of beach ridge and swale forest in Fort Gratiot and Burtchville Townships dates back to the late 1980’s with the vision of Bertha Daubendiek, founder of the Michigan Nature Association. Before the TLC existed, the Bidwell property on the north side of Metcalf Road in Burtchville Township was targeted for preservation and some of us worked on that effort for the MNA through the early 2000’s. The Bidwell property contains some of the best beach ridge and

swale forest of what little remains from Ohio to the Saginaw Bay. Things didn't work out and the effort was mostly dropped until 2018.

The beach ridge and swale landscape complex is a very unique formation of parallel sand ridges and muck wetlands. The series of sand ridges were deposited from about 4,500 years ago as high post-glacial lake levels receded as the Great Lakes outlet shifted from the Des Plaines River outlet to the Mississippi River at what would be Chicago, to the new Saint Clair River outlet at what would be Port Huron. The Saint Clair River down-cut rapidly which caused the post-glacial lake water to drop about 30 feet. At the same time, the earth's crust rose, having been depressed by the weight of glacial ice during the last stages of the Wisconsin glacial advance. The earth's crust is still rising slightly from the ancient depression of ice. The continued rise of the land and lowering of the Great Lakes has left a series of dry upland sand ridges and mucky wetland troughs or swales between. This beach ridge and swale landscape provides not only a unique natural community, but a record of Michigan's post-glacial past.

The beach ridge and swale complex is very limited in Michigan and covers just a small part of Fort Gratiot and Burtchville Townships in Saint Clair County where it ranges from about a quarter-mile to a half-mile wide. It originally extended from the Blue Water Bridges into southern Sanilac County. The remaining formation north of Port Huron is the only significant occurrence from Ohio to the Saginaw Bay. The coastal forest habitat supports rare and uncommon species found in few other regions and is vital for migratory birds that move and nest along Lake Huron. Ongoing threats to the beach ridge and swale complex include residential and commercial development along the M-25 highway corridor, speculative land clearing and grading, forest fragmentation, sand mining, invasive weeds, overgrazing by deer, loss of forest canopy due to tree pests or diseases, and incursions by off-road vehicles.

The community is usually referred to as "wooded dune and swale complex". However, "beach ridge and swale complex" is a more descriptive phrase for the landscape of the eastern Thumb of Michigan where the ridges were shaped primarily by water. As with all of the ridges around the Great Lakes, the sand was first deposited as beaches that gradually rose above the lake influence. Wind was a secondary influence, the non-forested shoreward ridges becoming dunes. The ridges along the southwestern shore of Lake Huron were probably less dune-like because prevailing winds are from the west and would have been buffered by adjoining forest to the west.

The beach ridge and swale complex provides critical shoreline habitat for uncommon and rare plant and animal species found in few other parts of Michigan, such as Purple-flowering Raspberry, Yellow Lady-slipper orchid, Pink Lady-slipper orchid, Eastern Hog-nosed Snake, and Blue-spotted Salamander, as well as a great abundance of migratory birds. Based on records maintained by the Michigan Natural Features Inventory, there are approximately 30 Endangered, Threatened, or Special Concern species that could occur in the beach ridge and swale community of Saint Clair County.



Of all species, Purple-flowering Raspberry - *Rubus odoratus* is the most emblematic of the beach ridge and swale community in Saint Clair County where it is known only from ancient beach ridges along Lake Huron and one location along the Saint Clair River. Purple-flowering Raspberry is essentially the Lower Peninsula's equivalent of the Upper Peninsula's well known Thimbleberry - *Rubus parviflorus*, being so closely related that they hybridize where their ranges overlap in the northern Lower Peninsula. Like Thimbleberry, Purple-flowering Raspberry has no thorns and produces large flowers and big tasty red fruits. But unlike the white flowers of Thimbleberry, as the common name suggests, Purple-flowering Raspberry produces vivid purple to magenta flowers with subtly contrasting pale yellow centers. While the prolific Thimbleberry is thought to have moved into Michigan from western North America as the last glacial ice melted back thousands of years ago, Purple-flowering Raspberry moved into Michigan from the east and is at the western edge of its range here, where native populations are relatively sparse and probably limited to only seven coastal counties, primarily along Lake Huron.



Yellow Lady-slipper - *Cypripedium parviflorum* and Pink Lady-slipper - *Cypripedium acaule* have been described as common orchids in Michigan, but both species are actually rare, limited to very specific habitats, and increasingly imperiled. Yellow Lady-slipper orchids are found primarily in the beach ridge and swale complex of Saint Clair County. Pink Lady-slipper orchids are more common in the dune and swale complex along Saginaw Bay. Despite how common or not these orchids may be, it is always a wonder to encounter these unusual plants in full bloom, usually in mid May. Yellow Lady-slipper is typically located in moist mucky sand along beach ridge bases. Pink Lady-slipper occurs on higher and drier sand.



The Eastern Hog-nosed Snake - *Heterodon platyrhinos* is a very uncommon snake in Michigan, found almost exclusively in semi-open sand ridges of the complex in Saint Clair County. More common in the southeast and southern plains of the United States, the Eastern Hog-nosed Snake is at moderate risk of extirpation in the Great Lakes region, Ontario, and much of New England. The Eastern Hog-nosed Snake is non-venomous, but well known for flattening its upper neck and head like a cobra. When disturbed by a potential predator, they often roll over and play dead with their mouths open.



The Blue-spotted Salamander - *Ambystoma laterale* ranges across the northeastern United States and adjacent Canada to the James Bay. The salamander is found primarily in moist deciduous forests and swamp woodlands, especially with vernal pools. The Blue-spotted Salamander has been described as fairly common statewide, but seems to be particularly associated with the beach ridge and swale complex in Saint Clair County.



Northern White-cedar or Arbor Vitae – *Thuja occidentalis* is not rare, but it is characteristic of the beach ridge and swale complex in Saint Clair County, and occurs in few other areas of southeast Michigan, limited primarily to relatively undisturbed muck swamps, lake and stream margins, and deep shaded ravines. The few Arbor Vitae remaining in the beach ridge and swale complex are remnant of the original that covered much of this landscape a few hundred years ago prior to European-American settlement and important to retain for restoration of the plant community and value to wildlife. The regeneration of Arbor Vitae is now severely limited due to over-grazing by Eastern White-tailed Deer.



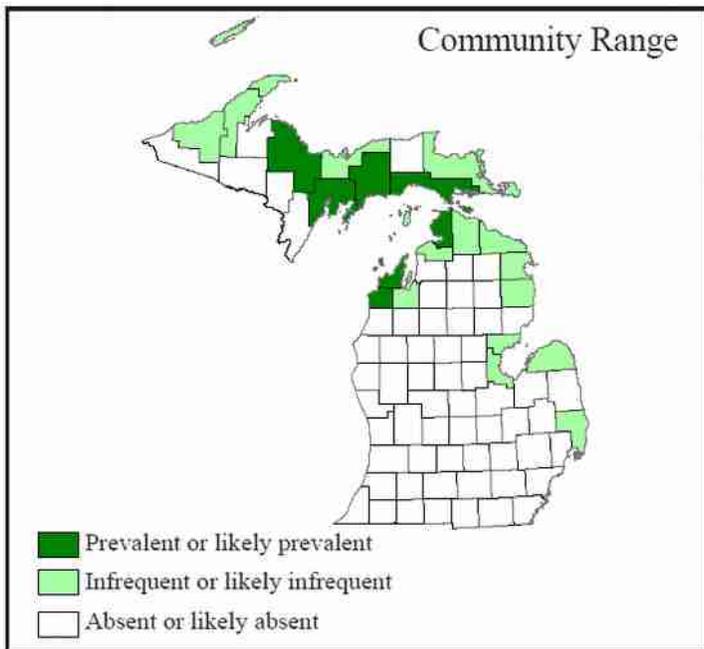
The coastal forest is vital for migratory birds that move and nest along Lake Huron. Recent species observations provided by the local Blue Water Audubon Society for the beach ridge and swale habitat of Saint Clair County include American Redstart, Bald Eagle (Michigan Special Concern), Barred Owl, Bay-breasted Warbler, Black-and-white Warbler, Blackburnian Warbler, Blackpoll Warbler, Black-throated Blue Warbler, Black-throated Green Warbler, Blue-gray Gnatcatcher, Blue-headed Vireo, Blue-winged Warbler, Boreal Owl, Canada Warbler, Cape May Warbler, Cerulean Warbler (Michigan Threatened), Chestnut-sided Warbler, Common Nighthawk (Michigan Special Concern), Common Yellowthroat, Connecticut Warbler, Cooper's Hawk, Eastern Towhee, Eastern Wood-Pewee, Golden-crowned Kinglet, Golden-winged Warbler, Gray-cheeked Thrush, Hairy Woodpecker, Hermit Thrush, Hooded Warbler (Michigan Special Concern), Indigo Bunting, Kentucky Warbler, Least Flycatcher, Louisiana Waterthrush (Michigan Threatened), Magnolia Warbler, Merlin (Michigan Threatened), Mourning Warbler, Nashville Warbler, Northern Goshawk (Michigan Special Concern), Northern Parula, Northern Saw-Whet Owl, Olive-sided Flycatcher, Ovenbird, Palm Warbler, Philadelphia Vireo, Pileated Woodpecker, Pine

Grosbeak, Pine Siskin, Pine Warbler, Red-bellied Woodpecker, Red-breasted Nuthatch, Red-eyed Vireo, Red-shouldered Hawk (Michigan Threatened), Rose-breasted Grosbeak, Ruby-crowned Kinglet, Scarlet Tanager, Sharp-shinned Hawk, Swainson's Thrush, Tennessee Warbler, Tufted Titmouse, Veery, Whip-poor-will (Michigan Special Concern), White-breasted Nuthatch, White-winged Crossbill, Wilson's Warbler, Wood Thrush, Yellow Warbler, Yellow-bellied Sapsucker, Yellow-billed Cuckoo, Yellow-rumped Warbler, and Yellow-throated Vireo.

The beach ridge and swale landscape complex is very limited geographically, occurring only along the Great Lakes and originally covering only about 1% of Saint Clair County, and even less of the Thumb region as a whole. The landscape complex in Saint Clair County is the only significant occurrence remaining from Ohio to Saginaw Bay. Very little of this unique shoreline community remains intact, due largely to construction of State Highway M-25 and subsequent development along this corridor.



The Michigan Natural Features Inventory (MNFI) considers Great Lakes wooded dune (or beach



ridge) and swale complex as a distinct natural community in Michigan because of the unique assemblage of physiographic, soil, and vegetative components that provide high quality habitat for numerous shoreline species. The MNFI ranks the Great Lakes complex as a rare to uncommon community both statewide and globally. There are landscapes of similar geologic origin along oceans and seas, but plant and animal communities of the Great Lakes complex are unique, and much of the Great Lakes landscape has been destroyed by development and hydrology alterations.

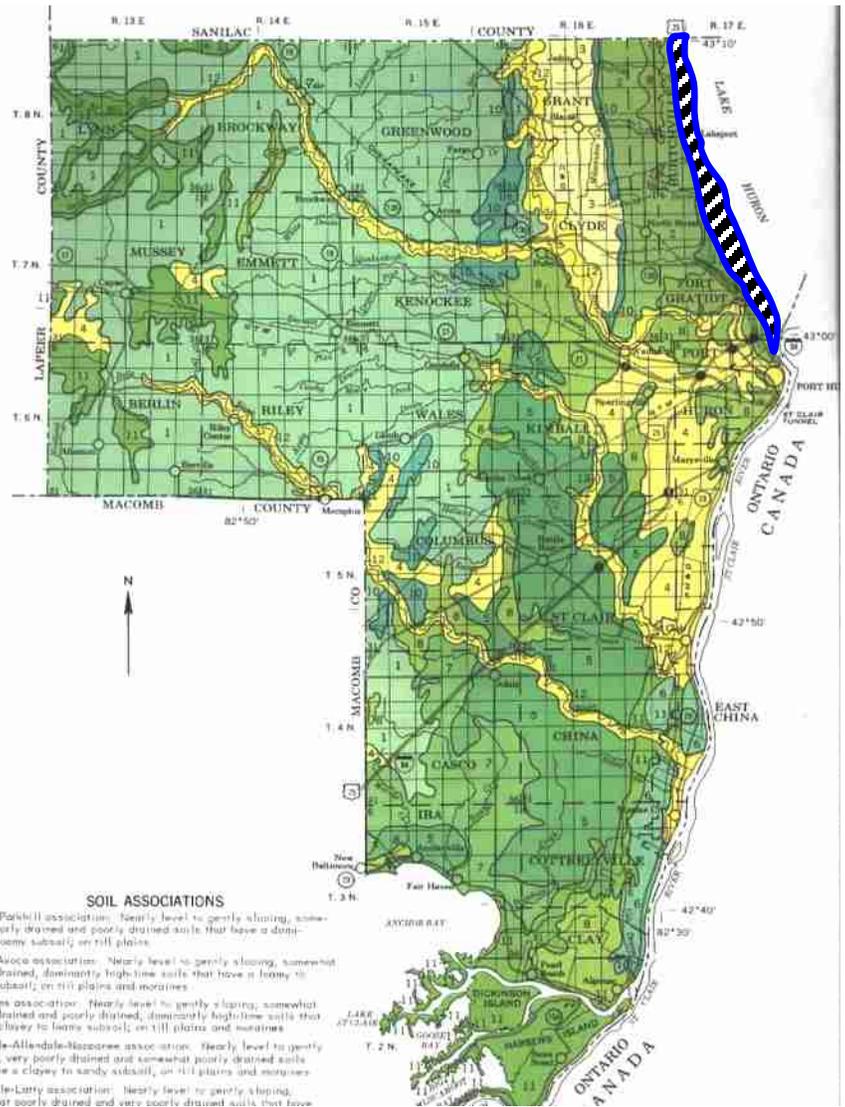
The primary soil type of the beach ridge and swale landscape in Saint Clair County is Wainola-Tobico complex. About half of this soil complex is somewhat poorly drained Wainola fine sand forming the upland beach ridges. The other half is very

poorly drained Tobico mucky fine sand and pure muck in the wetland swales between the ridges. The Tobico mucky fine sand portion of the complex is a hydric soil. This soil complex is restricted in Saint Clair County to a narrow strip along Lake Huron in Fort Gratiot and Burtchville Townships, covering only about 0.7% of the county in 1970 when soil survey data was compiled.

Today, significantly less of this unique shoreline community remains intact. What remains of the landscape in Fort Gratiot and Burtchville is the only significant occurrence from Ohio up to the tip of the Thumb where there is a similar formation at Port Crescent State Park and Sleeper State Park, and along other parts of Saginaw Bay. In Saint Clair County, the sand ridges average about 3 to 4 feet above the adjoining swales. The largest and oldest beach ridge runs continuously along the western limit of the landscape, furthest inland from Lake Huron. Although much of it has been mined out, this big sand ridge is still intact through Lakeside Cemetery and into Port Huron near the Blue Water Bridges where it is over 500 feet wide and up to 15 feet high. The largest relatively intact portion of the complex in Saint Clair County is now limited to an approximately 4-mile long strip of forest tracts averaging about one-quarter mile wide. It is critical to protect and restore what remains before it becomes less of a coastal ecosystem and more a patchwork of unsustainable remnants.

The most imminent and devastating threat to the beach ridge and swale complex in Saint Clair County is development, or land clearing and grading as speculative preparation for development. Some landowners have cleared large areas of forest with the misguided intent of drying-up wetlands. Others have graded upland sand ridges into the adjacent wetland swales. Forest clearing and wetland filling not only destroys the immediate impact area, but degrade the beach ridge and swale complex as a whole by fragmenting the forest, altering the hydrology, and disrupting ecological functions of the community inherent in its natural linear connectivity. such as a migratory bird corridor. An increasing threat to the entire beach ridge and swale complex is sand mining. Trucking costs will always make local sand sources more desirable to contractors. Other significant ongoing threats to the beach ridge and swale complex include invasive plant species expansion, overgrazing by Eastern White-tailed Deer, loss of forest canopy due to the Emerald Ash Borer, continued degradation of the plant and animal community due to decreased forest cover, and incursions by off-road vehicles.

Being a linear landscape, the coastal beach ridge and swale forest is naturally suited as a greenway corridor. A proposed walking and biking trail would traverse the entire park from Fort Gratiot north to Lakeport State Park, providing an excellent opportunity for interpretive signage describing the landscape, geology, and natural community. We believe the park would be a significant destination for birders as the coastal forest is a major corridor for migratory birds moving up and down along Lake Huron. When completed and with some promotion, this coastal park could attract birders on a level approaching Point Pelee National Park in Ontario.



Tranquil Ridge Sanctuary

0.446 Acre, Dryden Township, Lapeer County
Acquisition Date: 2021 April 09

Part of the Southeast ¼ of Section 32 and part of the Southwest ¼ of Section 33, Town 6 North, Range 11 East, Dryden Township, Lapeer County, State of Michigan, described as: Commencing at the Southeast Corner of said Section 32 (Southwest of Section 33); thence N.03°47'11"E., 492.86 feet (500.0 feet record) along the East line of said Section 32 (West line of Section 33) to the Point of Beginning (said point is marked with a ½" iron rod cap #47200); thence N.89°59'00"W., 76.88 feet (47.0 feet record) to set iron bar cap #47200; thence N.41°02'15"W., 81.04 feet (N.41°45'00"W., 80.5 feet) to a found 2" dia. rod; thence N.00°12'00"E., 34.00 feet (Due North record) to found square bar; thence N.89°43'30"E., 136.31 feet (N.89°43'00"E. record) to the East line of said Section 32 (said point is marked with a ½" iron rod cap #47200); thence continuing N.89°43'30"E., 97.89 feet (N.89°43'00"E. record) to the approximate centerline of Lake George Road; thence along said approximate centerline, S16°37'20"W., 100.50 feet (S15°30'00"W., 100.0 feet record); thence S89°59'00"W., 75.48 feet (87.5 feet record) to the Point of Beginning and containing 0.446 acres.

Parcel 44-007-032-036-00, 0.255 acre, and Parcel 44-007-033-013-00, 0.191 acre

On April 09, 2021, the TLC purchased the 0.446-acre Tranquil Ridge Sanctuary located along Lake George Road near the Oakland County border in Dryden Township, Lapeer County. The Sanctuary is located on top of a narrow ridge along the east edge of a huge forested valley, nearly 1 mile across and 2 miles long, with a series of lakes and wetlands at the bottom. This impressive ice-contact landscape formed as retreating glaciers left massive ice fragments across the interlobate region. These large ice blocks, surrounded by outwash deposits, melted away, leaving steep embankments around a depressions full of meltwater known as a kettle lakes.

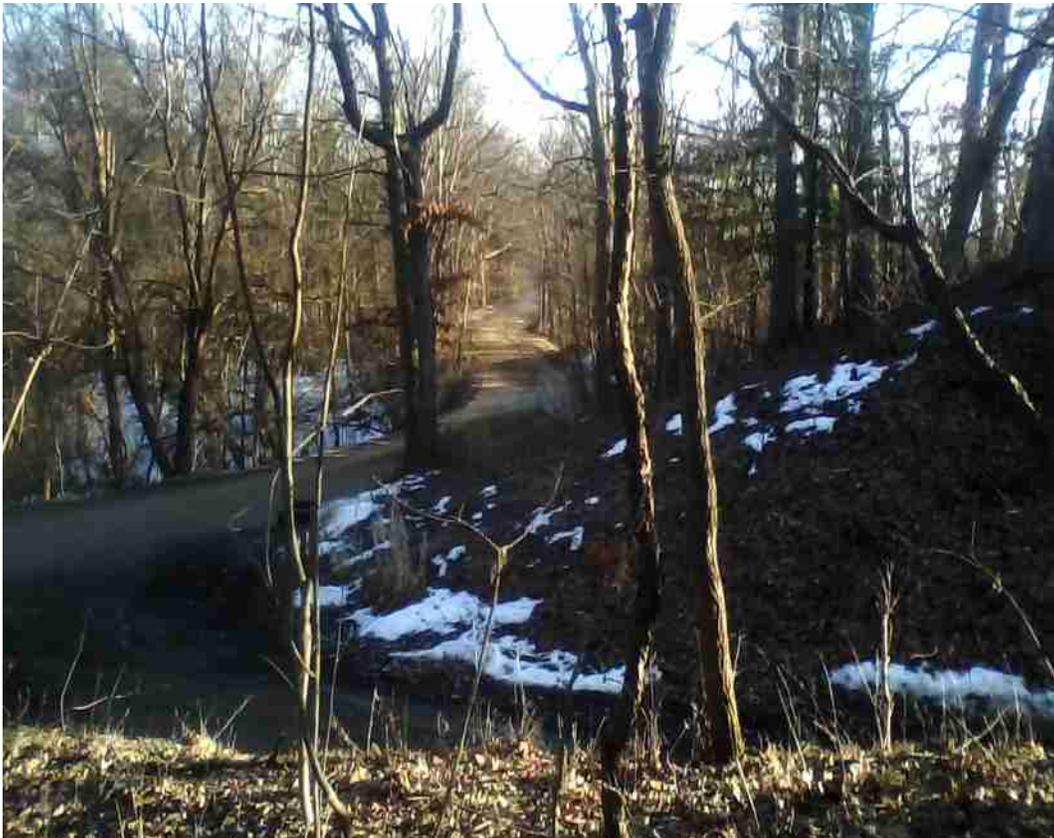
The plant community on the Tranquil Ridge Sanctuary is basically dry-mesic forest of Black Oak, White Oak, Black Cherry, Big-tooth Aspen, Black Locust, and Sassafras. Black Locust trees are apparently native to south-central North America but invasive in Michigan. Although the Sanctuary is located in a relatively untouched natural area, there was an old cottage on the adjacent property years ago. Limited soil disturbance allowed invasive plants like Black Locust, honeysuckle, and privet to spread onto what would become the Sanctuary.

The new preserve came with some old junk from an adjacent cottage that was demolished years ago. The TLC removed most of this on a few work days in 2021. We were told that the Sanctuary was once part of an old music camp, but this interesting history is yet to be confirmed.

Although the Tranquil Ridge Sanctuary is a very small property, it is part of a much larger natural area, largely covered by mature oak forest. Not only is it an interesting and uncommon glacial landscape in Michigan, but it is very scenic and largely undeveloped and forested due to the extreme slopes. Future development of the area is most likely to be limited to very disperse single-family residences. For now, you can sit on one of the boulders on top of the ridge and look out over the valley with Brooks Lake shining below and feel the solitude.



View southwest from Tranquil Ridge Sanctuary of Brooks Lake.



View south from Tranquil Ridge Sanctuary of Lake George Road.

TLC Conservation Easements

Bob Putze Preserve

The Bob Putze Preserve is the first residential landowner conservation easement agreement for the TLC. The conservation easement adjoins the Port Huron State Game Area along the west side of Abbottsford Road; a very nice northern forest community with lots of Eastern White Pine, and tall Red Pines that Bob Putze planted in 1964. Edge species like Big-tooth Aspen and planted spruce are gradually dying off in the increasing shade, while shade-tolerant American Beech and Sugar Maple are colonizing the understory, a natural process known as forest succession which leads to a mature native forest community. The ground-level vegetation is diverse and of good native quality with the usual species of cool sandy soils in the Port Huron area including at least three species of clubmoss, a distant cousin of ferns, along with Canada Mayflower, Wintergreen, and Low Sweet Blueberry. A small area of wetland is covered by Royal Fern with Michigan Holly shrubs. Bob Putze's forest is potential habitat for Michigan Endangered Painted Trillium, a rare species now known only from Saint Clair in all of Michigan, and occurring within a mile of Bob's land.

Bob Putze is a very conscientious and reverent man who loves God's creation and cares for every animal that ventures onto his land. Bob feeds them all, including deer, turkeys, rabbits, raccoons, opossums, and stray cats. Even Pileated Woodpeckers come to his suet feeder, and Flying Squirrels live in a nest box by his driveway. Bob has always felt a spiritual connection to his land. For years, he wanted to ensure that the woods would remain natural and undeveloped after he is gone. The conservation easement signed with the Thumb Land Conservancy in March of 2017 provides the legal basis for that protection in perpetuity.



The Bob Putze Preserve conservation easement site.



Canada Mayflower, Ground-cedar (clubmoss), and Red Maple seedling.



Typical forest understory.



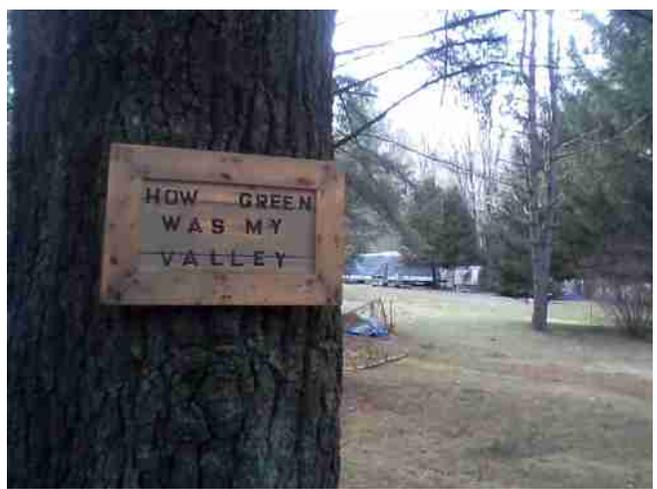
Typical forest understory.



Overstory of planted Red Pine.



Typical forest understory.



One of Bob's signs.

The Bob Putze Preserve is characteristic of the drier and more northerly forest remaining in the region. In the Port Huron area, northern forest complex is a second-growth woodland complex of mesic to dry-mesic northern forest, dry-mesic southern forest, hardwood-conifer swamp, and southern hardwood swamp on sandy soils extending across large parts of Kimball, Clyde, and Port Huron Townships. The vegetation of this complex is a unique blend of northern and southern flora, skewed largely toward northern species. This generally northern community complex covers a broad and flat landscape of coarse to fine sands deposited across the glacial lakeplain, the dominant cover being swamp forest. Smaller upland sand ridges are typically scattered throughout the complex, deposited in glacial drainageways or as glacial lake beaches and inland dunes.

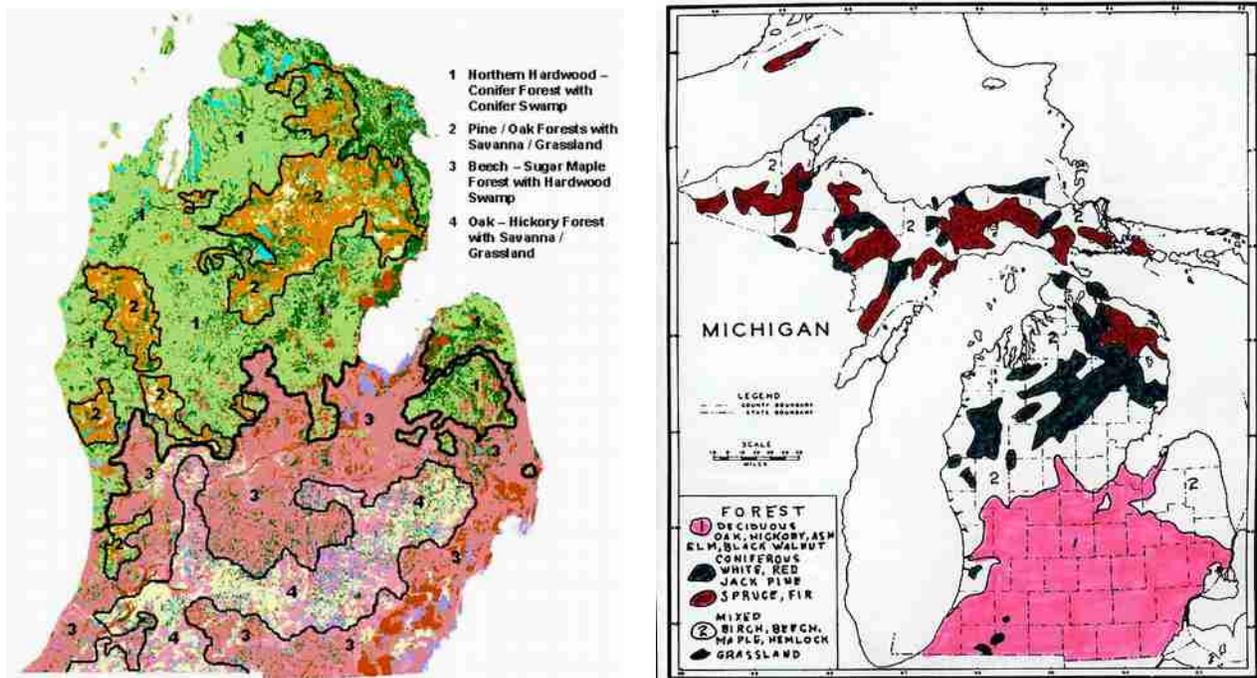


Bob Putze standing by one of the Red Pines he planted in 1964.



Bob Putze and Michigan Holly he transplanted to his yard.

Northern forest communities occur almost exclusively north of the “tension zone” or “transition zone”, a rough division of northern and southern flora in the northeastern United States, extending from Maine through Minnesota and dividing the lower peninsula of Michigan roughly in half. North of the transition zone, conifer trees are a major component of the forest along with broad-leaved hardwood trees. South of the transition zone, conifers are largely absent. The combination of climate and soils north of the transition zone favors northern vegetation, and south of the zone favors southern vegetation. In Michigan, the transition zone is broad, roughly 100 miles wide in some areas, running from near Muskegon on Lake Michigan, to the Saginaw Bay and across the northern tip of the Thumb. Some consider the transition zone to extend down through the lower part of the Thumb, but most restrict it to northern Huron County. Although there is some disagreement as to the precise location and extent of the transition zone, it is certain that many northern plant species reach their southern range limit there, and conversely, many southern plant species reach their northern limits. Regardless, the occurrence of large northern plant communities south of Saginaw Bay is unusual. The primary factor in the southern extension of northern flora in the Thumb is the cooler growing season near Lake Huron. Northern vegetation extends down from Huron County in a narrow coastal zone through Sanilac County, spreading out to the south and west over the low, flat, wet sands of Saint Clair County on the glacial lakeplain.. Other factors include extensive sand soils, a generally high water table perched above a shallow layer of lakeplain clay, and the historic influence of fire.



Northern and southern floristic zones in Michigan.

Several rare or uncommon plant species occur almost exclusively in this northern forest complex in Saint Clair County. The complex contains all of the currently known and extant populations of Michigan Endangered Painted Trillium – *Trillium undulatum* in Michigan. Michigan Threatened Northern Prostrate Clubmoss - *Lycopodiella margueritae* was recorded from the area in 2002 but now its occurrence is apparently questionable due to a recent change in the taxonomic status of the species. Other uncommon plants that may be found in the complex include Creeping Rattlesnake Plantain - *Goodyera repens*, Downy Rattlesnake Plantain - *Goodyera pubescens*, Tesselated Rattlesnake Plantain - *Goodyera tessellata*, Trailing-arbutus - *Epigaea repens*, Pink Lady-slipper orchid - *Cypripedium acaule*, and Showy Orchis - *Galearis spectabilis*.

Koester Preserve

The 79.4-acre Koester Conservation Easement in Fort Gratiot Township, Saint Clair County, was established on April 4, 2020 and protects one of the larger forest tracts remaining in the township. The property is located along the south side of Keewahdin Road and Pine Grove Avenue, extending south one-half mile. The land owners, Darrin and Kim Koester, constructed their residence on 5 acres in the north end of the parcel. The conservation easement allowed the Koester's to afford the property taxes on this large parcel, which had not been sold for many years. Upon sale, the property taxes would have increased significantly and made the land unaffordable for the Koester's as a residence.



The Koester Preserve includes a large area of relatively mature, non-fragmented southern swamp and hardwood-conifer swamp forest complex on seasonally inundated to moist sands with scattered upland knolls. Wetland vegetation includes Silver Maple, Green Ash, American Elm, Eastern Cottonwood, Bur Oak, Swamp White Oak, American Hornbeam, Spicebush, Dwarf Raspberry, Spotted Touch-me-not, False Nettle, Clearweed, Marsh-marigold, Sensitive Fern, Royal Fern, Spinulose Woodfern, Fowl Manna Grass, Lake Sedge, and Tussock Sedge. Upland vegetation includes Red Oak, Black Oak, White Oak, American Beech, Basswood, Sugar Maple, Red Maple, Tulip Tree, Sassafras, Serviceberry, Witch-hazel, Jack-in-the-pulpit, White Avens, Solomon-seal, Wild Geranium, and Yellow trout-lily. Many of the native forest plant species are typically of a more northern distribution in Michigan, including Paper Birch, Eastern White Pine, Eastern Hemlock, Speckled Alder, Black Chokeberry, Meadowsweet, Low Sweet Blueberry, Dwarf Raspberry, Wintergreen, Goldthread, Canada Mayflower, Wild Sarsaparilla, Foamflower, Wood Anemone, Bracken Fern, Royal Fern, Northern Lady Fern, Ground-pine, and Ground-cedar. Likewise, there are species that are typically more southern, including Black Oak, Sassafras, Tulip Tree, and Spicebush. This sort of southern-meets-northern forest is characteristic of the Blue Water Area, a transitional vegetative region where nearby Lake Huron maintains cooler summers and warmer winters.



View across the south end of the Koester Conservation Easement.

The south end of the parcel was partially logged in recent years but tree removal appears to have been limited largely to dead ash. The logging left a lot of deep tire ruts in the south end, but the forest plant community is still intact.

The Koester's developed their residence on land that was cleared decades ago and covered by planted pines along with very common or weedy species such as Apple, Black Cherry, hawthorn, Gray Dogwood, Autumn-olive, Common Buckthorn, Tartarian Honeysuckle, Common Blackberry, Late Goldenrod, Panicked Aster, and grasses. Portions of this area have so many apple trees, it appears

there may have once been a small orchard here. The TLC assisted the Koester's in avoiding regulated wetland impacts, optimize the conservation easement boundaries, identify invasive shrubs such as buckthorn and honeysuckle, plan and control methods. The TLC will also assist them with management of the conservation easement in the future to improve the native forest community.

TLC Stewardship Sites

12.35-Acre Deerfield Wind Energy Preserve Huron Township, Huron County, Michigan 2016 to present

In late 2016, the TLC contracted with Algonquin Power Company of Oakville, Ontario, Canada to provide stewardship of their 12.35-acre Deerfield Wind Energy Preserve, about 4 miles west of Port Hope. The Deerfield Wind Energy Preserve was placed under a State conservation easement as mitigation for wetland impacts resulting from the nearby Deerfield Wind Energy turbine project. 1.235 acre of State-regulated forested wetland was permanently converted to open wetland for the purpose of clearing a 60-foot wide right-of-way for an electrical transmission line. The Michigan Department of Environmental Quality allows preservation of existing wetland, at a 10 to 1 ratio, as mitigation for permitted wetland impacts. As with the TLC Dead End Woods and Peltier Beach Ridge Sanctuaries in Fort Gratiot Township in Saint Clair County, the Deerfield Wind Energy preserve was placed under a State conservation easement as mitigation for permitted wetland impacts. The MDEQ now requires long-term stewardship on all mitigation sites, usually provided by land conservancies like the TLC.



Deerfield Wind Energy Preserve, shown in yellow boundaries.

Most of the Deerfield Wind Energy Preserve is southern swamp forest with species trending somewhat toward a northern community. Dominant vegetation includes Silver Maple, Black Ash saplings and seedlings, Sensitive Fern, Spinulose Woodfern, Wood Nettle, Clearweed, Lake Sedge, and other sedges. Small upland areas are dominated by Red Maple, Wild Black Cherry, American Basswood, and, unfortunately, Japanese Barberry. Uncommon native plant species include Foamflower, Swamp White Oak, Turtlehead, Woodreed Grass, Spicebush, Cardinal Flower, Round-leaved Pyrola, and Red Trillium. The preserve is part of one of the larger forest fragments remaining in the Thumb, almost continuous along tributaries of Willow Creek to Lake Huron. As such, it is not only important for the watershed, but as habitat for migratory birds. Those observed on the preserve include Wood Thrush, Veery, Eastern Wood-pewee, Evening Grosbeak, many American Redstart warblers, Common Yellowthroat warbler, Yellow Warbler, Black-capped Chickadee, Downy Woodpecker, and Catbird.



Swamp forest on the Deerfield Wind Energy Preserve, showing Pileated Woodpecker excavations on the dead tree at the right.

The most immediate stewardship issue on the Deerfield Wind Energy Preserve was determined to be a dense growth of invasive Japanese Barberry along roughly 600 feet of the east preserve boundary, extending about 100 feet west into the forest before decreasing to a few scattered shrubs. The barberry growth apparently exploded in the past few years as a result of forest clearing on the adjacent parcel east to expand a hay field. The clearing greatly increased the amount of light exposure in the remaining forest, shifting edge forest conditions at least another 100 feet west into the preserve.

The TLC proceeded with extensive manual clearing of the barberry in the fall of 2017, as opposed to herbicide application, after determining that native forest plants under and around the barberry would likely be eliminated by herbicide. These species include Foamflower, Turtlehead, Red Trillium, Round-leaved Pyrola, and Canada Mayflower. Deer ticks are known to concentrate in barberry, much of it head-high on the preserve, which could present a risk of Lyme Disease to stewards cutting or digging barberry in the summer. To minimize Lyme Disease risk and destruction of native woodland herbs, the TLC has limited most of our work to the fall, winter, and early spring. Starting in early September

of 2016, the TLC began cutting barberry shrubs with hand loppers and a gas-powered weed whacker fitted with a 4-point steel brush blade. Over one acre of barberry has been cut along the east side of the preserve. In the early spring of 2018, the TLC will start burning the cut barberry stems with a large propane torch. Repeated for a few years, most of the barberry should eventually be killed. Others will be manually pulled or dug from the ground.



View south of Japanese Barberry along the east preserve boundary.

As with other stewardship sites, the TLC conducts species inventories, detailed measurements of vegetation in sampling plots across the preserve, general observation, and extensive photographic documentation as part of the annual monitoring required by the MDEQ. The TLC inspects all preserves annually to monitor conditions and identify potential stewardship issues. A detailed monitoring report is submitted to the MDEQ by the end of January each year.

18.5-Acre Super Kmart / Sam's Club Preserve Port Huron Township, Saint Clair County 2016 to present

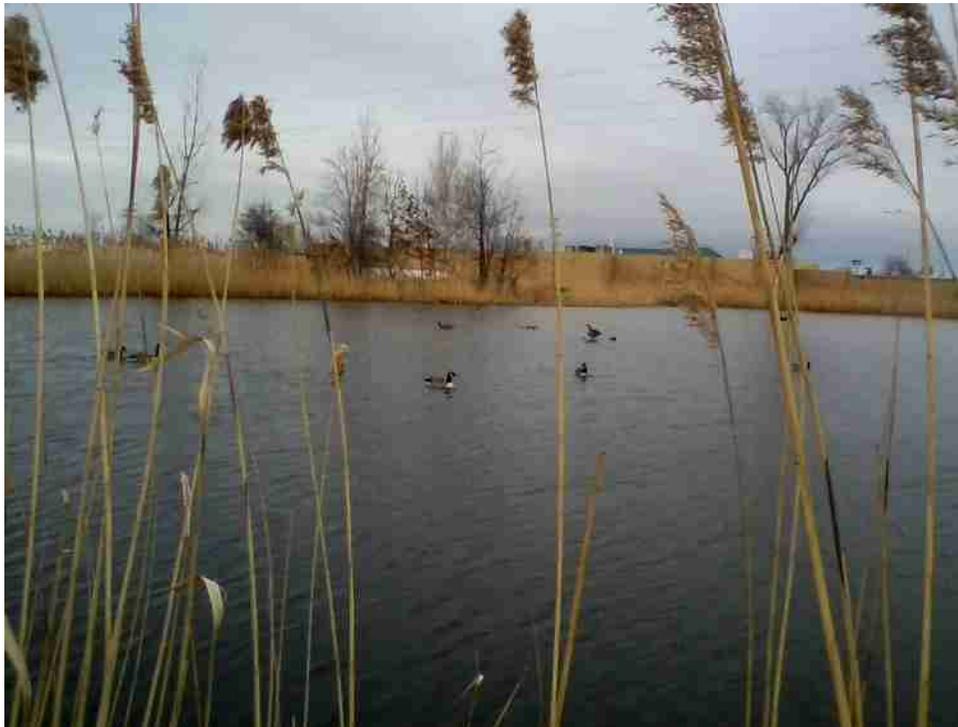
Starting in early 2016, the TLC has been assisting Port Huron Township in Saint Clair County with management of wetland and forest around the vacant Super Kmart and Sam's Club at the northeast corner of I-69 and 32nd Street. Wetland was constructed north and east of the stores, and natural swamp forest preserved, as mitigation for a wetland permit issued by the Michigan Department of Environmental quality back in 1992. In total, about 18.5 acres of wetland and forested upland is protected by a State of Michigan conservation easement. Management of the area has been lacking for years and became even more critical when the Super Kmart closed a few years ago.

TLC member and friend, Port Huron Township Fire Chief Craig Miller, has been a continued advocate for the preserve while working for a compromise allowing the Township better management of the area for public safety. In late 2016, County Sheriff deputies moved an encampment of about 15 young men living in tents and other shelters on the preserve to adequate housing elsewhere. They not only caused a lot of destruction on the preserve for years, but produced drugs and engaged in theft of local stores and customers. Relocating these men was key to gaining control of the preserve.



Super Kmart and Sam's Club preserves (areas 1, 2, and 3) in Port Huron Township.

The constructed wetland on the Super Kmart and Sam's Club preserve leaves a lot to be desired, being almost completely dominated by invasive Reed – *Phragmites australis*. The most striking part of the constructed wetland is a large pond east of the stores that is utilized by an abundance of waterfowl. In contrast, a large part of the preserve consists of the original native forest community with uncommon species like Blue-bead Lily, Fringed Polygala, Michigan Holly, Black Chokeberry, and a Scarlet Oak x Pin Oak hybrid particular to the Port Huron area. The TLC produced a detailed management plan for the preserve which has helped gain approval for management actions from the MDEQ while taking the sensitive natural features into consideration.



Canada Geese in the pond east of the stores, showing also the dominance of invasive Reed.



Left: Invasive Reed along north drive. Right: Litter north of stores before March 2016 clean-up.



Native forested wetland north of the stores. Despite surrounding impact, still a nice natural area.

In March and December of 2016, the TLC assisted a County community service crew with clean-ups, removing litter and materials left on the site by the young men that lived on the preserve. During unseasonably warm weather on February 26, the TLC assisted the Port Huron Township Fire Department in an attempt to burn the invasive Reed in the wetland east of the stores. Unfortunately, the air temperature was too low to sustain a good burn. However, based on a recent discussion with the Township Supervisor, another controlled burn should be attempted in the early spring of 2018 and the TLC will continue to assist the Township as we are able.

51-Acre Michigan Road Preserve Port Huron Township, Saint Clair County, Michigan 2011 to 2015

From 2011 through 2015, the TLC contracted with the Saint Clair County Drain Commissioner, Saint Clair County Road Commission and Pro-Tel Development to provide five years of annual monitoring and stewardship required by the Michigan Department of Environmental Quality as a condition of two wetland permits issued to the SCCRC and Pro-Tel Development. The SCCRC permit authorized impact of 0.57 acre of emergent marsh and 0.14 acre of shrub swamp wetland for the removal of the old Michigan Road crossing of the North Branch of Bunce Creek, and replacement of the crossing structure with a new bridge over the Canadian National Railway in Port Huron Township. The Pro-Tel Development permit authorized impact of 2.85 acres of wetland and relocation of 950 linear feet of the Read Drain for the purpose of commercial development at the southeast corner of Wadhams Road and Griswold Road in Kimball Township. In total, the MDEQ required preservation of 31.08 acres of existing natural wetland as mitigation for the permitted impacts. The SCCRC and Pro-Tel Development provided the required preservation on two adjacent parcels totaling just over 51 acres and the SCCDC subsequently accepted ownership of the land.



The TLC inspected the conservation easement site annually for five years, documented site conditions, identified management concerns, and performed stewardship activities according to the requirements of the MDEQ permits and management plans produced by the TLC. Annual monitoring and stewardship reports included detailed vegetation data from sampling plots, descriptions of ecological conditions, vegetative development, human and natural disturbance, litter and refuse dumping, invasive species control results, controlled burn effects, native plantings, ecological enhancement, easement sign conditions, potential safety hazards, adjoining land use, a summary of annual management and maintenance activities, and extensive on-site photographs. Monitoring reports also included comparisons of current site conditions to those of previous years, descriptions of changes observed, and evaluation of the effectiveness of long-term management actions.

The Michigan Road Preserve is just 51 acres of a much larger northern woodland complex on upland sand ridges and lower wetland east of Michigan Road, north of Dove Road and along the south side of the Canadian National Railroad. Sand ridges are relatively broad, a few hundred feet in width, appearing to be Rousseau fine sands. Adjacent lower and wetter soils are Wainola-Deford fine sands. Most of the preserve is typical of relatively young woodland in the Port Huron area, recovering over the past 70 to 90 years after much of the area was cleared for timber. The forest community is composed of northern species like Red Maple, Paper Birch, Wintergreen, Bracken Fern, Wild Sarsaparilla, and Canada Mayflower mixed with southern species like Black Oak and Smooth Highbush Blueberry. The central and eastern portions of the Michigan Road Preserve are covered by disturbed northern shrub swamp dominated by Tag Alder, Black Chokeberry, and Glossy Buckthorn, with Narrow-leaved Cat-tail and Reed in the lowest and more open areas.



Typical wetland and upland complex on the Michigan Road Preserve, showing tip-up mounds.

Despite clearing decades ago, the Michigan Road Preserve has retained many species characteristic of the vegetation that existed before European settlement. The composition of the forest community on the preserve, like much of the forest in the Port Huron area, is a diverse blend of northern and southern flora, being located at a southern extension of Michigan's Transition or Tension Zone along the Lake Huron coast, with a moderated climate.

The habitat across much of the Michigan Road Preserve appears well suited for Michigan Endangered Painted Trillium - *Trillium undulatum*, known from other sites nearby. Painted Trillium is one of nearly 40 species of trillium native to North America, about 10 of which are found in Michigan. Saint Clair County is an isolated outpost for Painted Trillium on the western edge of its range in North America, reflecting the Blue Water Area's unique natural history. Its primary range is the Appalachian Mountains at higher elevations on organic soils, in rhododendron and Mountain Laurel thickets or Red Spruce groves, but nowhere is it considered common. In Saint Clair County, Painted Trillium is recorded only from mesic northern forest, on moist sands. Its occurrence strongly coincides with the interface of Rousseau fine sand or Chelsea-Croswell sand ridges and the lower and wetter Wainola-Deford fine sands, such as on the Michigan Road Preserve. Plants are often found along the base of sand ridges, near wetland. Painted Trillium also shows a strong affinity for distinct and dense tip-up mounds like those on the Michigan Road Preserve. Painted Trillium was first documented in Saint Clair County around 1900 by botanist, attorney, and city controller of Port Huron, Charles K. Dodge.



Atop a large sand ridge in northeast of the Michigan Road Preserve.



Royal Fern and Tag Alder (stem left) on the west edge of the shrub swamp.

A few small patches of Marsh Saint John's-wort - *Triadenum fraseri* occur in the shrub swamp in the central part of the preserve. This is a northern species not often encountered in Saint Clair County, but more common in northern Michigan. Marsh Saint John's-wort is indicative of wet sandy soils, occurring in alder thickets, such as the Michigan Road Preserve, but also bogs and sedge meadows, suggesting it may be remnant of a more open, fire-maintained community.

Three invasive weeds are a management concern on the preserve, including Reed - *Phragmites australis*, Glossy Buckthorn – *Frangula alnus*, and Narrow-leaved Cat-tail - *Typha angustifolia*. Reed is limited to the open shrub swamp areas in the central and eastern parts of the preserve where it is mingled with Glossy Buckthorn, Black Chokeberry, and Tag Alder. Narrow-leaved Cat-tail covers far less area and is very limited, in only the few open patches in the north-central part of the preserve. Neither Reed nor Narrow-leaved cat-tail are spreading as they already occupy the full extent of open habitat on the preserve. Glossy Buckthorn, however, while fairly widespread across the open shrub swamp, is still spreading in the swamp forest. It is a co-dominant species of the forest understory across about a third of the preserve and is, by far, the greatest management concern.



Tangle of Black Chokeberry, Glossy Buckthorn, and Reed that dominates much of the shrub swamp on the preserve.

There appear to be few direct, recent human impacts on the Michigan Road Preserve. There are no trails on the preserve, being fairly well isolated by the North Branch of the Bunce Creek to the southwest, the Canadian National Railway to the north, and extensive forest to the east and south. Because wetland is so extensive in this area, there are few nearby residences, which is probably another factor in the lack of disturbance. Apparently for the same reasons, there is little refuse.

In the fall of 2011, land adjoining the west side of the preserve was completely cleared for the railroad crossing construction authorized by the same MDEQ permit that the Michigan Road Preserve provides wetland mitigation for. In response to the increased light, Glossy Buckthorn density and growth exploded along the west boundary of the preserve.

The adjacent forest clearing caused further degradation through yet more deforestation and by extending edge effects at least another 100 feet into the preserve. Forest quality is very dependent on maintaining large, unfragmented tracts that are less susceptible to invasion of edge and weed species. Large unfragmented forests are better able to maintain interior forest species, remnants of prehistoric populations that thrived prior to European settlement 150 to 200 years ago. The loss of adjacent forest made the preserve that much more unsustainable in the long term. With less forest, full sunlight extends further into the remaining forest, favoring weedy edge species over the remnant native flora. Wind-throw of mature trees from prevailing west winds will extend further into the preserve. Interior forest birds such as Wood Thrush are particularly vulnerable to nest invasion and territorial displacement by Cowbirds and other birds of open habitat and edge woodlands.

The TLC conducted several management activities on the Michigan Road Preserve to control invasive Glossy Buckthorn and to improve the native flora by reintroduction of a natural fire regime that characterized this type of forest community prior to European settlement. With the assistance of the Port Huron Township Fire Department, the TLC conducted two small controlled burns on 2014 April 12. Subsequent inspections of the preserve indicated that the burning was moderately effective in eliminating Glossy Buckthorn seedlings. Based on this, the TLC conducted a much larger burn on the preserve the following spring, on 2015 May 01. The burn was conducted without the PHTFD, but with new TLC intern, Alex Roland, from Saint Clair County Community College, her friend, Brook, and a few TLC board members. The natural fuel load (leaves and twigs) was greater and weather conditions were much more favorable that day to sustaining a good burn. The results of the burn were evaluated later in August, with the assistance of TLC interns Alex Roland, Jeff Hansen, and Nicole Barth, all students at SC4. An additional decrease in Glossy Buckthorn was observed, but with a significant increase in Black Cherry seedlings. Whether most of these seedlings would survive and eventually dominate the forest understory was uncertain. This could be a negative effect of burning, as well as our inability to burn Glossy Buckthorn in the lower and wetter portions of the wetland. A positive effect however, appeared to be increased density of fire-tolerant northern plant species, such as Bunchberry and Gay-wings, which would originally have likely been a larger component of the forest community before European settlement.



Port Huron Township Fire Department assisting with controlled burn on 2014 April 12.



Left to right, TLC President Cheryl Collins, TLC Stewardship Intern Alex Roland and her friend Brook at our 2015 May 01 burn.



Weather conditions and fuel load were very good for our 2015 May 01 burn.



TLC Intern Jeff Hansen collecting vegetation data during 2015 August 12 monitoring.



Bunchberry and Gay-wings in burned area.

TLC Mission

TLC Territory

The Thumb Land Conservancy is working to preserve natural areas in the Thumb of Michigan, a post-glacial landscape where northern forest blends with central hardwoods, bordered by Lake Huron, the Saginaw Bay, the Saint Clair River, and Lake Saint Clair. The mission territory of the TLC is Saint Clair, Sanilac, Huron, Tuscola, Lapeer, and Macomb Counties, but we can also work in adjacent areas as opportunities arise. The TLC will seek to work with local partners where our service territory overlaps that of other conservancies and similar organizations.



TLC Purpose and History

The Thumb Land Conservancy was formed in 2008 to provide an organization dedicated to filling the gap of nature preservation in Michigan's Thumb. Although much attention has been given to a few areas near Lake Saint Clair, the Thumb has been largely ignored. In recent years, we are happy to see that some new lands have been preserved, but so much remains unprotected.

There is a popular misconception that little is worth saving north of Detroit because of urban development and agriculture. While much of the landscape has been drastically altered, many high quality natural areas remain. A few places are nearly pristine, resembling conditions that existed before European settlement about 200 years ago.

The extensive destruction of natural areas in the Thumb makes preservation even more critical. Small, degraded fragments can be restored and expanded, and often serve as isolated havens for rare plant species. We believe all natural landscapes are important locally because they reflect a unique combination of history and features particular to that location. Many benefits of nature are obtained and enjoyed only locally. We believe it is especially important for children to have natural areas nearby where they can play, grow, and learn.

We have not forgotten what it's like to see a treasured woods in a neighborhood cut down, or wetlands carved up for more development. The TLC wants to work with any concerned individual before these places are lost.

The TLC is carrying on a legacy in the Thumb. In 1952, Macomb and Saint Clair Counties were the birthplace of what became the Michigan Nature Association, the first statewide land preservation group in Michigan. The MNA was led for many years by the late Bertha Daubendiek of Kenockee Township in Saint Clair County, and is one of a very few organizations that has protected land in the interior of the Thumb, with 18 sanctuaries here. Most of our board members personally knew MNA cofounder Bertha Daubendiek. Some are MNA members and did volunteer work for MNA. TLC President, Cheryl Collins, served on the MNA board from 2003 through 2008.



1970 - The MNA board goes statewide at the office of attorney Frank Giambone in Mount Clemens. Not exactly a radical looking bunch, but dedicated visionaries. Left to right, front: Bertha Daubendiek, Thelma Sonnenberg, Marie Moran Peter, Julius C. Peter, back: Frank Giambone, Rita Juckett, and Richard W. Holzman. Photo by Ralph Polovich.

TLC board members have been involved with environmental issues and natural area protection in the Thumb for many years. From 1989 through 2006, as members of the Mill Creek Coalition, we helped protect the Mill Creek, a major tributary of the Black River, from an 18-mile dredging and channelization project. In the 1990's, as members of the Thumb Bioregional Alliance, we opposed development of the roughly 800-acre Wingford Estate along the Black River in the middle of the Port Huron State Game Area, and supported the State of Michigan in protecting the Minden Bog, the upper headwaters of the Black River in Sanilac County, from an expansion of peat mining. Most of the TLC board members were involved in the Painted Trillium Tours in Saint Clair County from 2001 through 2004 and worked to acquire the MNA Sharon Rose Leonatti Memorial Nature Sanctuary in Kimball Township. Bill and Cheryl Collins co-founded the Macomb Land Conservancy in 2000, which merged with the Oakland Land Conservancy to become Six Rivers Land Conservancy. They monitored Michigan Threatened Pitcher's Thistle in Huron County in the late 1990's. As Huron Ecologic since 1998, Bill and Cheryl have defended natural areas across the Thumb on behalf of several citizen groups through the enforcement of State and federal environmental regulations.

In most cases, land that we fought to protect never became available for acquisition. However, we sometimes got to a point where we needed the help of a land conservancy. Lack of a conservancy dedicated to the Thumb proved to be a problem. While a few conservancies based outside the region could acquire land in our area, we have found a general lack of interest as they pursue acquisitions elsewhere. For some time, a local conservancy claimed to exist but never materialized. Finally in late 2007, with the potential of a land donation approaching, we decided it was time to form the TLC. Articles of Incorporation were filed with Michigan in October 2008 and the IRS confirmed the tax exempt status of the TLC in February 2009. Since late December 2008, the TLC has acquired three sanctuaries in Saint Clair County through donation.

Thumb Land Conservancy IRS Tax Exempt Confirmation

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date **FEB 26 2009**

THUMB LAND CONSERVANCY
4975 MAPLE VALLEY RD
MARLETTE, MI 48453-8348

Employer Identification Number:
41-2247569
DLN:
17053358350038
Contact Person: DEL TRIMBLE ID# 31309
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
December 31
Public Charity Status:
170(b)(1)(A)(vi)
Form 990 Required:
Yes
Effective Date of Exemption:
October 29, 2008
Contribution Deductibility:
Yes
Addendum Applies:
No

Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code. Contributions to you are deductible under section 170 of the Code. You are also qualified to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Code. Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

Organizations exempt under section 501(c)(3) of the Code are further classified as either public charities or private foundations. We determined that you are a public charity under the Code section(s) listed in the heading of this letter.

Please see enclosed Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, for some helpful information about your responsibilities as an exempt organization.

Letter 947 (DO/CG)

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THUMB LAND CONSERVANCY

Sincerely,

A handwritten signature in black ink that reads "Robert Choi". The signature is written in a cursive style with a large, prominent "R" and "C".

Robert Choi
Director, Exempt Organizations
Rulings and Agreements

Enclosures: Publication 4221-PC

Letter 947 (DO/CG)

Thumb Land Conservancy Articles of Incorporation

BCS/CD-502 (Rev. 12/05)

MICHIGAN DEPARTMENT OF LABOR & ECONOMIC GROWTH BUREAU OF COMMERCIAL SERVICES		FILED									
Date Received	(FOR BUREAU USE ONLY)										
	OCT 29 2008										
	Tran Info: 14361429-1 10/24/08 Chk#: 0199 Amt: \$20.00 ID: CHERYL COLLINS										
This document is effective on the date filed, unless a subsequent effective date within 90 days after received date is stated in the document.											
Administrator BUREAU OF COMMERCIAL SERVICES											
<table border="1" style="width: 100%;"> <tr> <td colspan="3">Name Cheryl Collins</td> </tr> <tr> <td colspan="3">Address 4975 Maple Valley road</td> </tr> <tr> <td>City Marlette</td> <td>State Michigan</td> <td>Zip Code 48453</td> </tr> </table>			Name Cheryl Collins			Address 4975 Maple Valley road			City Marlette	State Michigan	Zip Code 48453
Name Cheryl Collins											
Address 4975 Maple Valley road											
City Marlette	State Michigan	Zip Code 48453									
EFFECTIVE DATE:											

Document will be returned to the name and address you enter above. If left blank document will be mailed to the registered office.

70398K

ARTICLES OF INCORPORATION
For use by Domestic Nonprofit Corporations
 (Please read information and instructions on the last page)

Pursuant to the provisions of Act 162, Public Acts of 1982, the undersigned corporation executes the following Articles:

ARTICLE I

The name of the corporation is: Thumb Land Conservancy

ARTICLE II

The purpose or purposes for which the corporation is organized are:

To implement educational programs of natural history and conservation; Acquire, protect, and maintain natural areas and examples of flora and fauna in the Thumb region of Michigan and adjacent areas; and conduct activities as permitted by the Michigan Nonprofit Corporation Act

ARTICLE III

1. The corporation is organized upon a Nonstock basis.
(Stock or Nonstock)

2. If organized on a stock basis, the total number of shares which the corporation has authority to issue is _____ . If the shares are, or are to be, divided into classes, the designation of each class, the number of shares in each class, and the relative rights, preferences and limitations of the shares of each class are as follows:

PK

page 1

ARTICLE III (cont.)

3. a. If organized on a nonstock basis, the description and value of its real property assets are: (if none, insert "none")
none

b. The description and value of its personal property assets are: (if none, insert "none")
none

c. The corporation is to be financed under the following general plan:
grants, fundraising, donations, contributions, and gifts from the general public

d. The corporation is organized on a Directorship basis.
(Membership or Directorship)

ARTICLE IV

1. The address of the registered office is:
4975 Maple Valley Road Marlette, Michigan 48453
(StreetAddress) (City) (ZIP Code)

2. The mailing address of the registered office, if different than above:
_____, Michigan _____
(Street Address or P.O. Box) (City) (ZIP Code)

3. The name of the resident agent at the registered office is:
Cheryl Collins

ARTICLE V

The name(s) and address(es) of the incorporator(s) is (are) as follows:

Name	Residence or Business Address
William Collins	4975 Maple Valley Road, Marlette, MI 48453
Terry Gill	8168 N. Bricker Road, Greenwood, MI 48006
Traci Brown	1707 Whipple Street, Port Huron, MI 48060
Dan Rhein	1327 20th Street, Port Huron, MI 48060

Use space below for additional Articles or for continuation of previous Articles. Please identify any Article being continued or added. Attach additional pages if needed.

ARTICLE VI - EXEMPTION REQUIREMENTS

At all times the following shall operate as conditions restricting the operations and activities of the corporation:

1. No part of the net earnings of the organization shall inure to the benefit of, or be distributable to its members, trustees, officers, or other private persons, except that organization shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purpose set forth in the purpose clause hereof.
2. No substantial part of the activities of the corporation shall constitute the carrying on of propaganda or otherwise attempting to influence legislation, or any initiative or referendum before the public, and the corporation shall not participate in, or intervene in (including by publication or distribution of statements), any political campaign on behalf of, or in opposition to, any candidate for public office.
3. Notwithstanding any other provisions of this document, the organization shall not carry on any other activities not permitted to be carried on by an organization exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code or corresponding section of any future tax code, or by an organization, contributions to which are deductible under section 170(c)(2) of the Internal Revenue code, or corresponding section of any future tax code.

ARTICLE VII - BOARD OF DIRECTORS

The management of the affairs of the corporation shall be vested in a board of directors, as defined by the corporation's bylaws. No director shall have any right, title, or interest in or to any property of the corporation. the number of directors constituting the initial board of directors is four (4); their names and addresses are as follow:

- William Collins, 4975 Maple Valley Road, Marlette, Mi 48453
- Terry Gill, 8168 N. Bricker road, Greenwood, MI 48006
- Traci Brown, 1707 Whipple Street, Port Huron, MI 48060
- Daniel Rhein, 1327 20th Street, Port Huron, MI 48060

I, (We), the incorporator(s) sign my (our) name(s) this 18th day of September, 2008.

Traci Brown _____

Terry A. Diez _____

William C. Collins _____

Daniel G Rhein _____

CONTINUATION SHEET

ARTICLE VII — BOARD OF DIRECTORS, continued

Members of the initial board of directors shall serve until the first annual meeting, at which their successors will be duly elected and qualified, or removed as provided in the bylaws.

ARTICLE VIII — PERSONAL LIABILITY

No member, officer, or director of this corporation shall be personally liable for the debts or obligations of this corporation of any nature whatsoever, nor shall any of the property of the members, officers, or directors be subject to the payment of the debts or obligations of this corporation.

ARTICLE IX - DURATION/DISSOLUTION

The duration of the corporate existence shall be perpetual until dissolution. Upon the dissolution of the organization, assets of the corporation shall be distributed for one or more exempt purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code, or corresponding section of any future federal tax code, or shall be distributed to the federal government, or to a state or local government, for a public purpose.

ARTICLE X - INCORPORATORS In witness whereof, we, the undersigned, have hereunto subscribed our names for the purpose of forming the corporation under the laws of the State of Michigan and certify we executed these Articles of Incorporation this September 18 of 2008.

Trace Brown
Signature (Incorporator 1)
1707 Whipple Port Huron, MI 48060
Address, City, State, Zipcode

Jerry A. Dill
Signature (Incorporator 2)
2868 Bricker Rd. Greenwood, MI 48006
Address, City, State, Zipcode

William C. Collins
Signature (Incorporator 3)
4975 Maple Valley Road, Marlette, Michigan 48453
Address, City, State, Zipcode

Daniel & Rhein 1327 20th St Port Huron, MI 48060
Signature (Incorporator 4)
Address, City, State, Zipcode

Thumb Land Conservancy Bylaws

BYLAWS OF THUMB LAND CONSERVANCY

ARTICLE 1 - NAME

Section 1: The name of the organization shall be Thumb Land Conservancy. It shall be a nonprofit organization incorporated under the laws of the State of Michigan.

ARTICLE 2 - PURPOSE

Section 1: Thumb Land Conservancy is organized exclusively for charitable, scientific and education purposes that will benefit the citizens of the State of Michigan. These purposes include:
To preserve natural areas through negotiation, acquisition, obtaining conservation easements and/or securing development rights;
To educate the public on the importance of maintaining natural areas for environmental protection, wildlife habitat, and for enhancing the quality of life of area residents;
And, overall, to promote, preserve, and maintain our resources for the benefit of present and future generations.

ARTICLE 3 - MEMBERSHIP

Section 1: Membership shall consist of the Board of Directors

Section 2: The Board shall have the authority to establish and define nonvoting categories of membership.

ARTICLE 4 - BOARD OF DIRECTORS

Section 1: The Board is responsible for the overall policy, direction of the association property and business of this non-profit charitable corporation shall be managed by the Board of Directors. The Board may have up to seven members but not fewer than four. The Board receives no compensation other than reasonable expenses.

Section 2: Two founding members shall serve a one-year term and two founding members shall serve two-year terms. Thereafter, terms of office shall be for two-years.

Section 3: If for any reason the position of any Director becomes vacant, nominations for new members may be received from present Board members by the Secretary two weeks in advance of a Board meeting. These nominations shall be sent out to Board members with the regular Board meeting announcement, to be voted upon at the next Board meeting. These vacancies will be filled only to the end of the particular Board member's term.

Section 4: During the last quarter of each fiscal year of the corporation, the Board of Directors shall elect Directors to replace those whose terms will expire at the end of the fiscal year. This election shall take place during an annual meeting of the Board of Directors, called in accordance with the provisions of these bylaws.

Section 5: **Election Procedures**

New directors shall be elected by a majority of directors present at such meeting, provided there is a quorum. Directors so elected shall serve a term beginning on the first day of the next fiscal year.

Section 6: **Quorum**

For the purpose of doing business, a quorum shall constitute a majority of Board members.

Section 7: **Meetings, Special Meetings and Notice**

The Board shall meet at least quarterly, at an agreed upon time and place. An official Board meeting requires that each Board member have either written notice at least 10 days in advance unless it is a Special Meeting. Directors may participate in an official meeting by conference call if they are not able to attend in person.

Special Meetings may be called by either the President or three Board members.

Any action by the Directors may be taken without a meeting if all directors thereto give consent and filed by the Secretary in the permanent record of the Board. Verbal consent or electronic mail shall be considered a valid form of written consent for this purpose. Such consent must be reaffirmed at the next meeting of the Board.

The Annual meeting shall be held in the second quarter of the fiscal year at a time and place determined by the Board.

Section 8: **Resignation, Termination, and Absences of Director**

Resignation from the Board must be in writing and received by the secretary. A Director may be dismissed from office by the Board of Directors if three consecutive Board meetings are missed without due cause. The removal of a Director requires a three-fourths vote of the remaining Directors.

ARTICLE 5 - DUTIES OF DIRECTORS

Section 1: **Officers and Duties**

Officers shall be elected annually by the Board of Directors and shall include President, Vice-President, Secretary and Treasurer. All officers shall have a vote on the Board of Directors.

Section 2: **President**

The President shall preside at meetings, work with committees, coordinate strategies of action for the Board to consider, set the agenda for the next board meeting, and represent the Conservancy at public functions, land negotiations, etcetera unless otherwise delegated.

Section 3: **Vice President**

The Vice-President shall assist in the duties of the President and preside in his/her absence.

Section 4: **Secretary**

The Secretary shall be responsible for keeping of records of Board actions, including overseeing the taking of minutes at all Board meetings, sending out meeting announcements, distributing copies of minutes and the agenda to each Board member, and assuring that corporate records are maintained. The Secretary may sign in the name of the corporation for those instances required by law or by position.

Section 5: **Treasurer**

The Treasurer shall make a report at each Board meeting. The Treasurer shall chair the finance committee, assist in the preparation of the budget, help develop fundraising plans, keep track of all assets of the Conservancy, keep a record of all receipts and expenditures and make financial information available to Board members and the public.

Section 6: **Other Positions**

The Board of Directors may establish other officer positions as deemed necessary.

ARTICLE 6 - FISCAL YEAR

Section 1: **Fiscal Year**

The fiscal year shall be the calendar year.

ARTICLE 7 - COMMITTEES

Section 1: **Committee Formation**

The Board may establish committees as needed. Volunteers for committees shall be sought from the general public. Committees shall elect Chairpersons and make recommendations to the Board of Directors.

Section 2: **Executive Committee**

The four officers serve as the members of the Executive Committee. The Executive Committee may meet periodically and discuss recommendations that will be presented to the full Board at either the next regular meeting or special meeting.

Section 3: **Finance Committee**

The treasurer is the chair of the Finance Committee which includes three other Board members. The Finance Committee is responsible for developing and reviewing fiscal procedures, fundraising plan, and annual budget with other Board members. The Board must approve the budget and all expenditures must be within budget. Any major change in the budget must be approved by the Board. Annual reports are required to be submitted to the Board showing income, expenditures, and pending income. The financial records of the organization are public information and shall be made available to Board members and the public.

ARTICLE 8 – BENEFIT

Section 1: **Benefit**

No part of the earnings of the corporation shall inure to the benefit of, or be distributable to its members, directors, officers, or other private persons, except that the corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article 2 hereof. No substantial part of the activities of the corporation shall be carrying on propaganda, or otherwise attempting to influence legislation, and the corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office. Notwithstanding any other provisions of these articles, this corporation shall not, except to an insubstantial degree, engage in any activities or exercise any powers that are not in furtherance of the purposes of this corporation.

ARTICLE 9 - AMENDMENTS

Section 1: **Amendments**

These bylaws may be amended when necessary by two-thirds of the board of directors.

ARTICLE 10 - PROPERTY HOLDINGS

Section 1: **Holdings**

It will be the policy of the Thumb Land Conservancy not to sell their land once it has been acquired.

ARTICLE 11 - DISSOLUTION

Section 1: **Dissolution**

In the event of dissolution, all debts and liabilities shall first be paid according to their respective priorities. Any remaining assets shall be contributed to a similar non-profit charitable organization which is exempt from income taxes under Section 501(c) 3 of the Internal Revenue Code.

CERTIFICATION

These bylaws were approved at a meeting of the board of directors by a two-thirds majority vote on

Secretary: 

Date: 11-15-08