



**AGENDA**  
CHARTER TOWNSHIP OF MERIDIAN  
PARK COMMISSION MEETING  
Tuesday, May 10, 2022 4:30pm  
Meridian Service Center  
2100 Gaylord Smith Ct, Haslett 48840

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**REGULAR MEETING – 4:30PM**

1. CALL MEETING TO ORDER
  2. ROLL CALL
  3. PRESENTATIONS
    - A. Capital Youth Cycling Association
    - B. Eagle Scout Project – Ethan Olds
  4. PUBLIC COMMENTS
  5. APPROVAL OF AGENDA
  6. APPROVAL OF MINUTES  
March 8, 2022 Regular Meeting Minutes
  7. COMMUNICATIONS
    - A. The Power of Parks to Address Climate Change
    - B. Letter to Local Horse Farms Regarding Trail Usage
    - C. Resident complaint
    - D. Meridian Conservation Corps Evaluability Assessment
  8. ACTION ITEMS
    - A. Eagle Scout Project Approval – Ethan Olds
  9. DISCUSSION ITEMS
    - A. Horses on trails
    - B. Inclusive Playground
    - C. CIP – Capital Improvement Plan
    - D. Marshall Park Wetland Project
  10. DIRECTOR’S REPORT
  11. PUBLIC COMMENTS
  12. OTHER MATTERS AND COMMISSIONERS’ COMMENTS
  13. ADJOURNMENT
  14. SITE VISIT – 5280 OKEMOS ROAD
- 

All comments limited to 3 minutes, unless prior approval for additional time for good cause is obtained.

Individuals with disabilities requiring auxiliary aids or services should contact Parks & Recreation Director, LuAnn Maisner:  
2100 Gaylord C. Smith Court, Haslett, MI 48864 or 517.853.4600 - Ten Day Notice is Required.

Meeting Location: Meridian Service Center, 2100 Gaylord Smith Ct. Haslett, MI 48840



## 5. Agenda

### May 10, 2022



## AGENDA

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## 6. Approval of Minutes

**March 8, 2022  
Meeting Minutes**



CHARTER TOWNSHIP OF MERIDIAN  
PARK COMMISSION REGULAR MEETING  
Meridian Service Center  
2100 Gaylord C. Smith Court, Haslett, MI 48840  
TUESDAY, MARCH 8, 2022 4:30 PM

**1. CALL MEETING TO ORDER**

Chair Nardo-Farris called the meeting to order at **4:33 pm**.

**2. ROLL CALL**

PRESENT: Chair, Mary Nardo-Farris; Commissioner, Mark Stephens; Commissioner, Mike McDonald

ABSENT: Commissioner, Amanda Lick; Vice Chair, Ami Van Antwerp

STAFF: LuAnn Maisner, Director of Parks and Recreation; Jane Greenway, Senior Parks & Land Management Coordinator

**3. PUBLIC COMMENTS**

None

**4. APPROVAL OF AGENDA**

Commissioner Stephens moved **TO APPROVE THE AGENDA AS SUBMITTED**. Seconded by Commissioner McDonald.

VOICE VOTE: Motion carried unanimously.

**5. APPROVAL OF MINUTES**

Commissioner McDonald moved **TO APPROVE THE MINUTES OF January 11, 2022 as written**.

Seconded by Commissioner Stephens.

VOICE VOTE: Motion carried unanimously.

**6. COMMUNICATIONS**

A. Redeemer Church Food Bank Thank you

B. DNR Five Year Parks and Recreation Master Plan Approval Notice

C. Deer Management Appreciation Letter

Commissioner Stephens moved **TO ACCEPT AND PLACE COMMUNICATIONS ON FILE**. Seconded by Commissioner McDonald.

VOICE VOTE: Motion carried unanimously.

**7. ACTION ITEMS**

None

## 8. DISCUSSION ITEMS

### Roundtable Discussion on Various Topics

- **Okemos Road Acquisition, demo, site planning** – Acquisition of land located at 5280 Okemos Road was completed in December with assistance from a Michigan Natural Resources Trust Fund Grant. A condition of the grant is that any structures not used for recreation purposes must be taken down. We have contracted with Michigan Demolition and Excavation to remove the structure in the spring. Now is the time to review the site to determine a site plan that makes best use of the property. It was decided to walk the site as a group during the May 10, 2022 regular meeting prior to discussing possible plans.
- **Grant Programs Final Reimbursements (4)** – we are happy to report that all four DNR grants have been officially closed and final reimbursements approved for the following projects: Gateway Footbridge and Restroom in the Historical Village; Central Meridian Regional Trail Connector in Central Park; New Pavilion at HNC; New Restroom Building at HNC. Congratulations Jane on completing and successfully reporting these grant requirements.
- **Deer Management Final Report** – this document was distributed during the meeting.
- **Celebrate Meridian Festival** – This event is returning on June 25, 2022 to Central Park and Marketplace on the Green. The day will be filled with children's activities, food, live music and fireworks!
- **Meridian Heritage Festival**-Plans are underway to once again present the Meridian Heritage Festival on Saturday, October 1 in conjunction with the Friends of Historic Meridian and Nokomis.
- **Floating Islands in Central Park South Pond** – Staff is researching companies to request proposals for 2 floating purification islands for placement in Central Park South pond. These islands will be planted with live plants and anchored in the pond to improve water quality. This is a budgeted project in 2022
- **Build Back the Buffer Demonstration Project – Eagle Scout Project** – Staff is working with an Eagle Scout candidate to create a demonstration buffer at an area around the pond's edge in Central Park South.
- **Love a Park Day – April 20** – Kati Adams and her staff are managing this project that will take place in 8-9 park locations from 5-7pm on the 20<sup>th</sup>. A volunteer appreciation pizza party will follow at Marketplace. Volunteers will be able to register online.
- **Drain Office Prescribed burns** will take place again this spring in Towar Gardens Neighborhood in the rain gardens including in Towar Park.
- **ARPA Funding** – Meridian Township has received 4.5 million dollars in American Rescue Plan funds from the Federal Government. The Township Board will be meeting soon to determine the process for deciding how to best use these funds.  
Possible Park Projects for consideration include:
  - Historical Village Building Maintenance
  - Wind Screens at Marketplace
  - Restroom Upgrades at Marketplace
  - WIFI at Marketplace
  - Skate Park
  - Universally Accessible Playground Project

I will keep the Park Commission posted as more details become available.

- **25<sup>th</sup> Anniversary of HNC July, 23, 2022** – A celebration will take place this summer to recognize the 25<sup>th</sup> Anniversary of the Harris Nature Center! The nature center has been a valuable element in our park system that connects thousands of schoolchildren with nature annually. A formal recognition ceremony is scheduled for Friday, July 22 for the media and elected officials with an all-day open house set for Saturday with free programs and activities throughout the day.
- **HNC Native Plant Sale Fundraiser** – this annual event is taking place now where people can place their orders online and pick them up at the Nature Center in April.
- **Emma- Native seed collection project-** As we work to plant a “Native Meridian”, Stewardship Coordinator, Emma Campbell organized multiple events last year where volunteers harvested seeds from native plant in our land preserves. These seeds have been given to local native plant specialists to grow for us. In the spring, they will return the plants to us for planting in restoration areas on township properties.
- **RecPro Registration Software** – Our department has utilized a company named ActiveNet as our recreation registration provider for over 15 years. We are now moving to a new company from Michigan called RecPro. This system is used nationwide in other communities and will save us an estimated \$5,000 annually plus also provide additional services that were not available to us with our current provider.
- **July is Parks and Recreation Month** – Parks and Recreation has become more popular since the pandemic as many people realized the value of parks for their mental and physical health; and longing for special events for social gathering that were paused for nearly two years. Let’s look at creative ways to celebrate Parks in 2022 during July.
- **Farmers Market Hours and Summer Concerts-** Since the pandemic, the Farmers Market has operated outdoors year-round. The winter hours are expanding to 10am-2pm until May 1. Starting in May, the hours will expand to 8am-2pm. Starting in June, the Wednesday Market will resume along with live concerts on the Marketplace stage in June, July and August.
- **Community Services Millage Renewal** – this millage supports Human Services, Recreation and the Meridian Senior Center. The Township Board has voted to place a renewal request on the August Ballot in 2022.
- **Parking lot work NMRP and CPS** – Also budgeted this year is the expansion of the parking lot at North Meridian Road Park and to resurface the entry drive in Central Park South. Our Engineering Department is assisting with this project.

9. **DIRECTOR’S REPORT** – All items were covered during the roundtable discussion

10. **PUBLIC COMMENTS** - None

None

11. **ADJOURNMENT**

Chair Nardo-Farris adjourned the meeting at 6:46 pm.

The next scheduled meeting is **May 10, 2022** at the Meridian Service Center, 4:30 pm.



## 7. Communications

- A. The Power of Parks to Address Climate Change**
- B. Letter to Local Horse Farms**
- C. Resident Complaint**
- D. MCC Evaluability Assessment**



Connecting everyone to the outdoors™



# The Power of Parks to Address Climate Change

A SPECIAL REPORT

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## Contributors

Diane Regas	Robin Mark	Vivek Shandas
Brendan Shane	Guillermo Rodriguez	Katherine Liss
Taj Schottland	Owen Franklin	Shannon Nichol
Linda Hwang	Lisa Foderaro	Jackie Flin
Will Klein	Keith Maley	Daniel Calvert
Ronda Chapman	Hannah Kohut	Bryan Eichler
Howard Frumkin	Deborah Williams	Sulay Sosa
Carter Strickland	Amy McCullough	Todd Hill

Cover photo: A man and a boy plant a fern at Squak Mountain, which Trust for Public Land helped protect as part of the Mountains to Sounds Greenway, a ribbon of forests and slopes in the Cascade Mountains of Washington State. © Tegra Stone Nuess



Volunteers haul debris during TPL event “A Day on the Land at Kahuku Point” on the island of O’ahu in Hawai’i. © John Bilderback

## Introduction

As a warming planet leads to worsening risks and impacts, American cities are taking matters into their own hands. Cities are not only pledging to slash carbon emissions in the coming decades. They are also figuring out how to be more resilient. Because one thing is clear: disadvantaged communities that have been historically neglected will suffer the most as the planet warms.

Park acres, it turns out, are very good at buffering the effects of climate change. Green space has the power to lower air temperature and absorb floodwater, and can be designed in such a way as to significantly enhance those climate benefits.

As part of its 2022 ParkScore® index, Trust for Public Land (TPL) asked parks departments in the 100 most populous cities what they’re doing about climate change. Bottom line: many cities are doing a great deal. But cities are not taking action in a vacuum. Neighborhood associations, climate-justice groups, arts organizations, and environmental activists have all pushed cities to move aggressively on climate measures.

Even where progress *is* being made, it’s not nearly enough to address the climate crisis, given that many

cities lack the funds to adequately care for their parks, let alone invest in major new infrastructure.

We also analyzed access to park space in those same cities, breaking down the results by race/ethnicity and household income. We found:

- Eighty-five percent of cities are adapting parks and recreation facilities to address climate change.
- Eighty percent are enlisting parks to counter urban heat.
- Seventy-six percent are improving surfaces to reduce flooding and runoff from rains.
- Twenty percent are actively managing parks and woodlands to sequester carbon dioxide, the main greenhouse gas responsible for climate change.
- Other cities are managing parks to reduce the risk of wildfire, restoring shorelines to absorb storm surges, and opting for renewable sources of energy.
- Cooling green space is not equitably distributed, however. Trust for Public Land analyzed the 100 most populous cities and found that the neighborhoods where most residents identify as people of color had access to an average of 43 percent less park acreage than predominantly white neighborhoods.

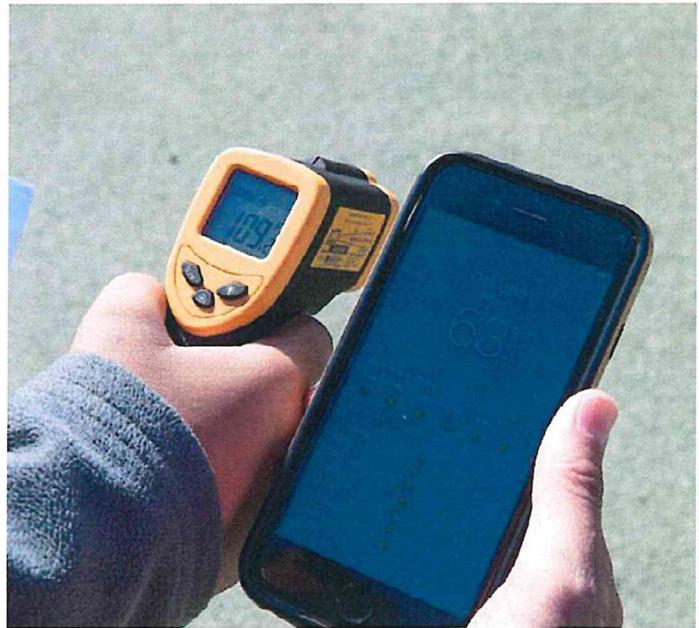
## Parks Emerge as Vital Defense

Climate change is bearing down on the world faster than scientists predicted, making life in cities especially challenging. Densely built environments, dominated by concrete and pavement, absorb and hold heat longer than natural landscapes. They are also more prone to flooding as extreme precipitation dumps so-called rain bombs on urban areas that become inundated with dangerous—even lethal—amounts of stormwater.

As damage from climate change escalates in the form of extreme weather, parks and green spaces have an outsized role to play in making cities safe and more livable. Increasingly intense heat waves and heavier rainfalls are becoming more frequent. Cities can design parks with abundant tree canopy and shade structures that keep residents cool in summer and with rain gardens, bioswales, retention ponds, and other nature-inspired solutions that capture stormwater to reduce flooding and improve water quality.

Earlier this year, the Intergovernmental Panel on Climate Change, a group of experts assembled by the United Nations, issued a [major new report](#)<sup>1</sup> warning that the ravages of climate change were outpacing the ability of both nature and nations to adapt. The report represented a grim catalogue of the recent toll climate change has taken: storms and floods causing billions of dollars in damage; heat waves killing hundreds in the Pacific Northwest; and extreme heat and droughts leading to crop failures, devastated forests, and threatened water sources. And, the panel cautioned, cities need to rapidly ramp up efforts to protect against these hazards, whether blistering heat waves or sea-level rise.

“Communities are struggling with real threats from the climate crisis, like flooding and extreme heat,” says Diane Regas, president and CEO of Trust for Public Land. “And areas with the least amount of park space, namely communities of color and low-income neighborhoods, suffer the most. The good news is we have the tools to counter some of the worst impacts of climate change by using our public parks and schoolyards.”



A student at International Community School in Oakland, California, compares surface and air temperatures on the asphalt schoolyard using a device known as a “heat gun.” © Angela DeCenzo

Across the United States, many cities are starting to implement new policies to deal with climate change. In addition to setting ambitious goals for the reduction of carbon dioxide emissions, a number of cities are establishing flood prevention requirements, urban tree canopy goals, natural-area management blueprints, and park master plans that prioritize climate resilience.

A new survey by Trust for Public Land of the 100 most populous American cities found that a majority of park agencies are pursuing multiple strategies to address climate change. In fact, 85 percent reported adapting their parks and recreation facilities in some way.

Eighty percent of cities say they are using parks to tackle urban heat, while 76 percent are improving surfaces to manage rainwater and flooding. Half of the park agencies are providing emergency services for natural-disaster response, while about a fifth report enlisting parks to actively sequester carbon. (That translates to protecting and planting trees, since trees absorb and store carbon dioxide, the leading greenhouse gas responsible for climate change.) Some agencies, too, are electrifying vehicles and mowers, while renovating park buildings to meet LEED energy-efficiency standards. Still others are managing wooded parks to minimize the risk of wildfire by clearing underbrush and creating firebreaks.



Damage in a residential neighborhood of Cedar Rapids, Iowa, following a widespread windstorm, known as a *derecho*, in 2020. © Gwennie-nyan/Wikimedia Commons

## CASE STUDY: DES MOINES, IOWA

While more needs to be done, some park agencies stand out for their work to make parks—and by extension their cities—better able to withstand the effects of climate change. A recent city ordinance in Des Moines requires that all new (and newly renovated) parks include features that can both capture and filter runoff from heavy rains. Three renovations—at Birdland Park and Marina, Cohen Park, and East Village Park—are being designed with water-retention basins, rain gardens, and bioswales, which are vegetated channels or trenches that hold and filter runoff. (Des Moines is one of the 100 most populous cities included in Trust for Public Land’s annual [ParkScore index](#).)<sup>2</sup>

Moreover, the city will plant 1,500 trees this year, many of them in parks—a substantial increase over last year.

“Parks are extremely important for addressing the urban heat island effect,” says Daniel Calvert, planning and development administrator for the Parks and Recreation Department in Des Moines. “We have seen through studies that where we have green space and vegetated areas, parks are like sponges. They absorb water and reduce heat throughout the city. Fortunately, we have leadership that really gets that and embraces it and funds it.”

In a sign of just how much violent weather has battered the city, parks officials in Des Moines hired a wood carver to make something beautiful from fallen trees, like the ones that came down during the 2020 *derecho*—a prolonged, severe windstorm. The wood carver used the trunks to fashion climbing structures—one was in the shape of an octopus—for the city’s playgrounds.

Park agencies in major cities are also taking simple steps to relieve the heat stress experienced by their citizens—such as keeping parks open later in the evening, so children and adults can enjoy the outdoors when heat is less intense, as well as installing splash pads and water misters in playgrounds.

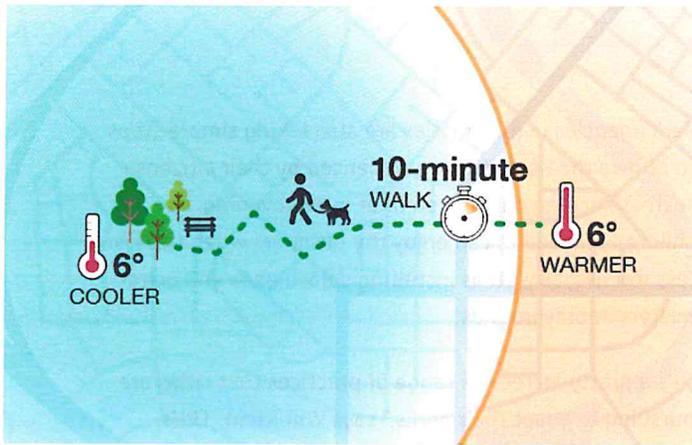
“It’s a pretty incredible range of practices that cities are pursuing to adapt their parks,” says Will Klein, TPL’s project manager for parks research.

Still, transforming parks and green space with climate in mind is expensive. Federal and state funding must be available to cities as they strive to protect residents from the impacts of climate change, especially in vulnerable communities. City governments—largely responsible for funding local park systems—can pursue ballot initiatives and other mechanisms, such as dedicated fees, to generate revenue for their climate projects.

## Some Cities Are Working to Mitigate Climate Change

While much of the focus in cities is on climate adaptation, a sizable number of parks departments are determined to do their part to stop contributing to climate change. Aware that greenhouse gases cause climate change, park agencies are deploying the weapons at their disposal, namely trees and plants and their carbon-storing superpowers.

It’s true that not every city has a large expanse of forest or woodland within its borders. But according to Brendan Shane, Trust for Public Land’s climate director, every bit of vegetation helps. A 2018 [study by University College London](#)<sup>3</sup> found that pockets of urban forest can contain as much carbon as similarly sized areas of tropical rainforest. “All of these natural systems in cities have an impact,” says Shane. “Individual trees growing in schoolyards and groves of trees in parks all capture carbon. Urban green spaces are about resilience, but they are also about climate mitigation and climate justice.”



Our analysis of 14,000 cities and towns shows that nationwide, areas within a 10-minute walk of a park are as much as 6 degrees cooler than areas beyond that range.

Residents of cities that *do* have lots of green space are most likely to experience the full benefits of heat relief. A study conducted by Trust for Public Land<sup>4</sup> in 2020 revealed that communities with nearby parks are dramatically cooler than those in “park deserts.” Our researchers analyzed satellite data for 14,000 cities and towns and found that nationwide, areas within a 10-minute walk of a park are as much as 6 degrees cooler than areas beyond that range.

## Greening: Low Tech, High Benefit

That’s an appreciable difference. With heat growing more intense by the year, greening American cities is a low-tech, high-benefit solution to an urgent problem. Over the past 30 years, extreme heat was, on average, the deadliest form of weather<sup>5</sup>, more so than floods, extreme cold, tornadoes, hurricanes, and other events, according to the National Weather Service. Flooding, too, is on the rise. Researchers from Stanford University concluded last year<sup>6</sup> that rainfall fueled by climate change was responsible for almost \$75 billion in flood damage in the United States since 1988.

In January 2022, NASA presented its latest findings<sup>7</sup> on global temperatures, with the somber news that eight of the top-10 warmest years on record occurred in the past decade.

And it will only get worse. The Union of Concerned Scientists predicts that<sup>8</sup>, barring a reduction in greenhouse gas emissions, the number of Americans experiencing 30 or more days with a heat index above 105 degrees in an average year will balloon to more than 90 million by mid-century, from fewer than 1 million today.



Newly planted trees and ornamental grasses at John H. Taggart School in Philadelphia, Pennsylvania, one of nearly a dozen schoolyards TPL has renovated there in recent years. © Jenna Stamm

Verdant spaces can blunt those increases. A pioneering citizen-science project<sup>9</sup> funded by the National Oceanic and Atmospheric Administration (NOAA) in 2018 highlighted nature’s impressive cooling potential. Temperatures in Washington, DC, and Baltimore in August of that year revealed differences of up to 17 degrees between park space and streetscapes dominated by stone, asphalt, and cement. Tellingly, the coolest temperature readings in DC came from deep-green Rock Creek Park and the National Arboretum.

Dr. Vivek Shandas, professor of climate adaptation at Portland State University and an investigator on the NOAA study, has since taken air temperature readings in scores of cities across the United States. “We really need to think about parks as a climate refuge,” he says. “They can improve our resiliency to hotter summers and more extreme precipitation and help us in these times of uncertainty. Especially for communities that don’t have many options for staying cool, parks play a significant role.”

Shandas’s research underscores that when it comes to heat mitigation, dense vegetation outperforms bare lawn. “We actually find that spaces with only grass and no tree canopy don’t make that much of a temperature difference when compared to built-out spaces,” he says. “American lawn culture is so deeply seated in our culture. But we need to find a way for people to go to a park and recognize what a landscape looked like for millennia, with multiple layers of vegetation.”



A student puts finishing touches on a TPL mural about urban heat (and the power of green space to combat it) on display at the Philadelphia, Pennsylvania Flower Show at FDR Park in South Philly. © Elyse Leyenberger

## Educating through Art and Activism

Raising awareness about the power of park space to serve as a bulwark against weather extremes is increasingly the work of climate activists and artists. In Philadelphia, Trust for Public Land is funding artists who are working with residents in three neighborhoods with some of the highest temperatures and worst flooding in the city.

Owen Franklin, Pennsylvania state director at Trust for Public Land, says the climate-themed art projects grew out of a detailed map TPL created that pinpoints where urban heat is felt most acutely in the city, along with challenges such as flooding, lack of open space, and obesity. “We see art as a way to connect and strengthen communities, to help residents understand their shared experiences,” he says. “It enables them to work effectively together to demand action from elected officials and become a formidable part of the conversation.”

In southeast Philly, an area rich in cultural diversity but short on green space, Sulay Sosa is an organizer with the Latina Moms initiative. She recently collaborated with

the artist José Ortiz-Pagán to highlight the ways urban heat harms the immigrant community. “After I learned more about global warming,” she said, “I felt this is something that affects us all. I believe that sharing information is an act of love.”

In densely developed, older cities like Philadelphia, finding new space to site parks can be difficult. But one overlooked space that is found in practically every neighborhood—the schoolyard—is being put to new use as a community park.

Trust for Public Land has partnered with the School District of Philadelphia to transform nearly a dozen schoolyards in the city. Students help design spaces that inspire play, reduce heat and flooding, and provide outdoor classrooms. Loaded with green infrastructure like absorbent turf fields and bioswales, these Community Schoolyards<sup>TM10</sup> projects also boost park access in the city. That’s because each school agrees to make the schoolyard available to the public after school and on weekends.

## CASE STUDY: ST. PETERSBURG, FLORIDA

In St. Petersburg, parks officials are waging their own battle against a warming climate. The city's resilience master plan makes plain that parks are critical in that fight, calling on officials to "plan and design for a future where city green space and parks can serve as a first defense against the vulnerabilities of climate change and storm surge."

To that end, St. Petersburg recently committed to expanding its tree canopy so that a third of all neighborhoods are shaded by 2035. Last year, it made a down payment on that pledge, planting 1,034 native trees in parks and along streets. With waterfront parks on Tampa Bay and the Intracoastal Waterway, the city is especially attuned to the risks of sea-level rise and rainwater runoff. Currently, work is underway in a few parks and preserves to restore wetlands and create "living shorelines," both of which absorb storm surges and filter pollutants.

In Lassing Park, which overlooks Tampa Bay, the parks department, in partnership with Tampa Bay Watch, is in the process of installing oyster reefs and planting native grasses along 700 feet of shore to halt erosion triggered by storms and cope with sea-level rise. Presently, the shore consists only of sand.

"The goal is to solidify the shoreline and use oysters to actually clean the water since they act as a natural filtration system," says Bryan Eichler, assistant director of parks and recreation with the City of St. Petersburg. "When we get a hurricane or tropical storm, it just devastates our shoreline."

A new Gallup poll<sup>11</sup> found that extreme weather has affected one in three American adults. The findings come from Gallup's annual Environment poll, conducted in March. (It was the first time Gallup included questions about extreme weather in the poll.) Residents of the South and West were more likely than those in the East or Midwest to report having experienced such weather, which included hurricanes, ice storms, flooding, extreme heat, wildfire, windstorms, and drought.

St. Petersburg Parks and Recreation is also starting to embrace renewable energy. Its main pool complex is heated and cooled with geothermal units that were installed in 2018, and about 10 percent of park bathrooms are now powered with solar panels.



Homes abutting the levee wall containing the London Avenue Canal in the Gentilly neighborhood of New Orleans, Louisiana, with the city's downtown in the distance. © Bryan Tarnowski

## Parks: Where Climate Justice and Environmental Justice Intersect

On the West Coast, Trust for Public Land is involved in two projects that address both climate and environmental justice. One is in Pacoima, a vibrant, predominantly Latinx community in California's San Fernando Valley dominated by industry and squeezed between freeways. The other is in Bayview-Hunters Point, a predominantly African American, low-income community in San Francisco historically cut off from its industrialized waterfront.

Ronda Chapman, Trust for Public Land's equity director, says that as a society, we have a "moral imperative" to partner with communities that have been marginalized so they can adapt to rising heat and floodwaters. "You can't talk about climate without talking about justice," she explains. "We know that those who are hit first and worst are the people who are low resourced and also end up being socially vulnerable."

"People tend to overlook the reality that these same communities are those that are the least responsible for the human causes of climate change," Chapman adds. "So often it comes down to investment prioritization. Environmental justice leader Dr. Robert Bullard once said, 'When you don't protect the least in your society, you place everybody at risk.' This is what we have to use as our North Star."

Recent analyses of historically red-lined<sup>12</sup> neighborhoods around the country have found that those areas suffer from higher rates of air pollution and extreme heat than

areas that were not subject to the discriminatory practice. (In the 1930s, banks drew red lines around majority Black neighborhoods they deemed too risky for home mortgages.) Communities of color are also disproportionately affected<sup>13</sup> by severe flooding, as seen during Hurricane Katrina in Louisiana and Hurricane Harvey in Texas.

TPL has found serious disparities in access to the outdoors. In a new analysis of the 100 most-populous cities, neighborhoods where most residents identify as Black, Hispanic and Latinx, American Indian/Alaska Native, or Asian American and Pacific Islander had access to an average of 43 percent less park acreage than predominantly white neighborhoods. Similar park-space inequities existed in low-income neighborhoods across cities.

## A Multifaceted Approach to Climate

In Pacoima, nearly half of the residents live in poverty. Yet the neighborhood abounds in culture, with multigenerational families forging strong connections to the community and to one another. With a landscape marred by hazardous-waste sites, landfills, and autobody shops, temperatures run higher than in other parts of Los Angeles, because of both a microclimate and the lack of green space. When it does rain during the winter months, water comes down in sheets, flooding streets and stranding residents.

A coalition is working to change that. TPL has partnered with Pacoima Beautiful and other groups to make the community more resilient in the face of climate change. With funding from California's Transformative Climate Communities grant program, the Pacoima initiative, known as the Green Together Collaborative, involves upgrades to existing park space, thousands of new street trees, the repair of broken sidewalks, and installation of climate-friendly features such as electric vehicle charging stations.

Previously, Trust for Public Land had worked with the community to convert a street into a pedestrian open space, called Bradley Plaza and Green Alley, with new trees and a giant shade structure. We also transformed



A child plays on a natural climbing feature in Bradley Plaza, which TPL recently created in the Pacoima section of Los Angeles, California. © TPL Staff

the adjacent alley into an attractive thoroughfare, with planting beds engineered to absorb and filter stormwater before it flows to the aquifer below.

“Heat and water are our big issues in Southern California,” says Robin Mark, program director in Los Angeles at Trust for Public Land. “We don’t have enough water and, when it does rain, we don’t do a good enough job of capturing it and infiltrating it. Most of it goes out to the ocean. It’s also hot most of the time. There was a day last year in Pacoima where it got up to 117 degrees. The focus of this grant program is to help Pacoima become more climate adaptive.”

In San Francisco, a spectacular green space on the bay is rising from a former brownfield and an adjacent, though rundown, park. When completed, the 10-acre India Basin Shoreline Park will offer boat access, as well as lawns, piers, and a floating dock for enjoying the bay.



Students planting in raised garden beds at Melrose Leadership Academy, a public elementary school in Oakland, California, where TPL helped reimagine the schoolyard.  
© Angela DeCenzo

Natural basins are incorporated into the design to reduce stormwater runoff—and thus, nutrient pollution—in the bay. The upland areas will feature drought-tolerant coastal sage and grasses. “The big idea for this park is to soften the shoreline by taking out the riprap and walls,” says Shannon Nichol, founding principal of GGN, the landscape architecture firm overseeing the project.

Maps projecting sea-level rise over the next 50 to 100 years led designers to establish fixed piers above the anticipated high-water mark in 2070. The design also takes into account the inevitable loss of park acreage closest to the water as sea levels climb in the coming decades. Plans call for the lawn to retreat as water encroaches, for example.

## Strengthening Communities

As much as the designers are trying to address sea-level rise, community partners and the city are working to strengthen the neighborhood—economically, socially, and politically. To achieve that, the project is being guided by the India Basin Equitable Development Plan. The plan was created by the community with technical assistance from Trust for Public Land, San Francisco Parks Alliance, A. Philip Randolph Institute, and San Francisco Recreation and Parks Department.

Among other things, the plan acknowledges and seeks to correct historic and systemic environmental injustices within Bayview–Hunters Point. It also provides resources to support community organizing and capacity building among residents. And it offers workforce development in the form of construction-job training, along with a tech hub. The hub has already opened in the existing park, with free Wi-Fi, loaner laptops, and tech support.

“If you don’t address equity, you’re not going to move the needle on climate or environmental justice,” says Jackie Flin, executive director of the A. Philip Randolph Institute San Francisco, a social-justice organization that is helping shepherd the India Basin Shoreline Park project.

## By Mapping the Problem, We Can Pinpoint the Solutions

Sophisticated mapping, like the kind developed by Trust for Public Land’s team of data scientists, can help cities identify where best to focus their energy in adapting neighborhoods. Linda Hwang, TPL’s senior director of strategy and innovation, explained that heat and public health data, as well as census information, now allow for more refined and revealing maps. “Our spatial analyses can show which neighborhoods have the least amount of park acreage,” she says, “and also where new and existing

park space can help address extreme heat, flooding, and other challenges like low physical-activity levels and poor mental health.”

In New York City, for instance, we have transformed 218 asphalt schoolyards into neighborhood parks. All of TPL’s Community Schoolyards projects include trees and plants, but nearly a quarter were designed specifically with green infrastructure to combat heat and sop up floodwater. Together, they capture more than 40 million gallons of water annually. The sponge-like schoolyards help prevent combined sewer overflows, in which the sewer system becomes overwhelmed during even moderate rains, discharging raw sewage directly into bays and rivers.

After the devastation from Hurricane Ida last September, when streets in New York City turned into rivers and residents drowned in basement apartments, the city committed anew to protecting people from the impacts of climate change. Weather stations in the city recorded more than 3 inches of rain in a single hour, shattering previous records.

New funding from New York City in the aftermath of Ida will enable Trust for Public Land to remake another 20 schoolyards over the next four years; they will be intentionally designed to absorb water in flood-hazard areas. (That is on top of 15 green-infrastructure schoolyards TPL had already planned to renovate, using funding from the city’s Department of Environmental Protection, the agency responsible for water quality.)

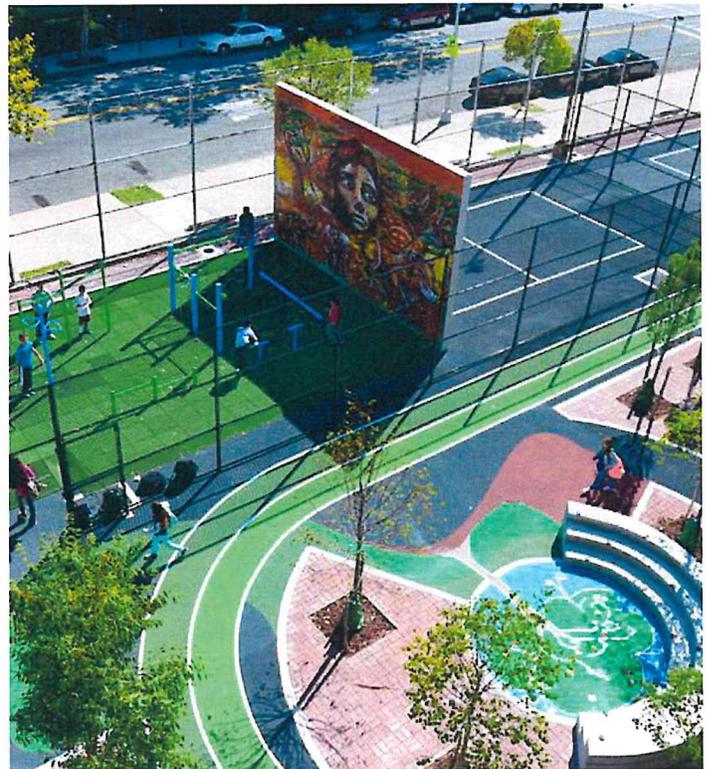
The 20 planned schoolyards sit within 500 feet of locations known for “extreme nuisance flooding,” while some are within 250 feet, says Carter Strickland, vice president of the mid-Atlantic region and New York state director at Trust for Public Land. Four schoolyards will break ground this year—two in Manhattan, one in the Bronx, and one in Brooklyn. Given the heat island effect permeating the city’s concrete canyons, the Community Schoolyards initiative will also provide much-needed cooling for schoolchildren and the wider community.

“Our hardscape just radiates heat and sheds water,” says Strickland, who formerly served as commissioner of the city’s Department of Environmental Protection. “This will

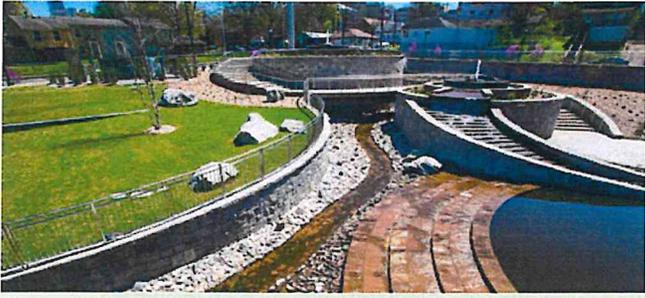
have a real, immediate impact. Everyone knows that on a hot day you want to sit under a shade tree. What we plant today will provide shade for a lifetime.”

While major cities like New York and San Francisco can afford to hire landscape architects well-versed in climate adaptation, that is not necessarily the case in smaller cities. That’s one reason the National Recreation and Park Association (NRPA) is offering an online course on managing floodwater, geared toward park planners, public works professionals, community groups, and advocates. Participants in the Green Stormwater Infrastructure program will receive a certificate upon completion.

“Our course explores the ways parks can be part of the solution around stormwater infrastructure,” says Ayanna Williams, director of community and environmental resilience for NRPA. “There are 10 modules that cover everything from how you engage the community and create a budget to various kinds of green infrastructure, from bioswales to green roofs.”



A Community Schoolyards project in New York City, one of 218 that TPL has renovated, featuring an outdoor classroom, a basketball half-court, climbing equipment, and trees. © Angela DeCenzo



Close-up of a retention pond in Cook Park, where TPL oversaw the transformation of a green space in the Vine City neighborhood of Atlanta, Georgia, which had a history of severe flooding. © Astra Group and Jennifer Camacho

## CASE STUDY: ATLANTA, GEORGIA

Perhaps no green space offers a better case study for dealing with flooding than Cook Park in Atlanta. Spearheaded by Trust for Public Land, the 16-acre park opened last spring in Vine City, a neighborhood long plagued by floods. Twenty years ago, torrential rains unleashed flash floods that toppled or damaged dozens of homes. Sixty homes were razed and many residents left the area for good. Still, the community remained at risk, given its location at the edge of downtown Atlanta, covered by buildings and pavement.

To avoid a repeat of the Vine City disaster, the new park features<sup>14</sup> a raft of green infrastructure elements that complement its 2-acre retention pond. Combined, these elements can manage up to 9 million gallons of rainwater per storm. The park recently won three engineering awards from the American Council of Engineering Companies of Georgia.

Todd Hill, a deputy commissioner with the Atlanta Department of Watershed Management, says Cook Park exemplified what the city is trying to achieve more broadly. “We are dedicated to managing stormwater,” he says, “and we’ve invested significantly in green infrastructure to support these goals across the city.”

Because of the elaborate engineering and design work, Cook Park’s more functional side doubles as a beguiling landscape. In the southeast corner of the park, for instance, fountains and pools draw visitors who are likely unaware that the waterworks also aerate and filter rainwater runoff.

“Every park that has green space will have some floodwater benefits,” says Taj Schottland, associate director of TPL’s national climate program, noting that grass and soil naturally absorb water. “But when you start to design parks with flood reduction in mind, that’s when you start to see these really significant benefits.”

Creativity around natural climate solutions—using nature and green infrastructure to address climate risks—was evident in the responses to this year’s survey by Trust for Public Land. Klein, TPL’s project manager for parks research, oversees the survey of the 100 most populous cities. He tallied a list of 470 parks<sup>15</sup>—from Chesapeake, Virginia, to Fremont, California—that, in one way or another, protect against climate change.

But deploying the full suite of strategies requires money. Congress and state governments need to help cities by investing in parks, trees, trails, and other nature-based solutions—especially in communities that need them most. Cities themselves should consider ballot measures to generate new revenue for the purpose of creating and enhancing parks. In fact, a record 35 of the 100 ParkScore cities now have voter-approved park bonds or other dedicated park-funding sources in place. Such investments will bridge the park equity gap, reduce urban heat, and prevent flooding caused by climate change.

For Howard Frumkin, senior vice president at Trust for Public Land and a leading expert on public health and sustainability, the innovative thinking applied to parks and climate is yielding another positive outcome. In a word: hope.

“If you can awaken in kids a connection with nature, which then inspires constructive engagement on the climate crisis, that is a powerful defense against despair and hopelessness,” says Frumkin, who coedited *Planetary Health: Protecting Nature to Protect Ourselves*. “There is something magical about parks, which is that they inspire people, and that inspiration translates to hopefulness.”

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**Trust for Public Land is a national nonprofit  
that works to connect everyone to  
the benefits and joys of the outdoors.**

**tpl.org**



Native plants and trees filter runoff during rainstorms before draining into a man-made pond at Atlanta's Historic Fourth Ward Park, which TPL built in the flood-prone neighborhood in 2010. © Christopher T. Martin



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*Township Supervisor*

**Deborah Guthrie**  
*Township Clerk*

**Phil Deschaine**  
*Township Treasurer*

**Scott Hendrickson**  
*Township Trustee*

**Kathy Ann Sundland**  
*Township Trustee*

**Marna Wilson**  
*Township Trustee*

**Courtney Wisinski**  
*Township Trustee*

**Frank L. Walsh**  
*Township Manager*

April 19, 2022

Dear Park Neighbor,

It has been brought to our attention by local residents that there has been an increasing amount of horse manure on the trails as well as damage from horses being on trails during the rainy season in Eastgate Park, Harris Nature Center and Legg Park.

Our park trails are multi-use in nature, and accommodations may be necessary to maintain harmony among trail users. Please use courtesy and a little extra care while using park trails.

- If your horse drops manure on the trail, get off and clear it off the trail or use a pail to collect and then remove the manure from the park. Another option is to use a horse manure bag.
- Clean up after your horse in the parking lot if you have transported your horse using a trailer. Do not leave manure or urine puddles lying about. Bring a muck bucket and a manure fork to clean up with. Wash away urine with a few buckets of water.
- Please refrain from using the natural trails during the spring and fall when trails are wet and the most vulnerable to erosion.

Thank you for your help in maintaining our park trails. Please do not hesitate to contact me with any questions or concerns.

Sincerely,

Kati Adams  
Parks and Land Preservation Superintendent  
[kadams@meridian.mi.us](mailto:kadams@meridian.mi.us)  
517.853.4616

**From:** Meridian Township, MI [<mailto:webmaster@meridian.mi.us>]  
**Sent:** Sunday, April 10, 2022 2:26 PM  
**To:** Kati Adams <[kadams@meridian.mi.us](mailto:kadams@meridian.mi.us)>  
**Subject:** Horse usage at Meridian Riverfront Park Trail

Message submitted from the <Meridian Township, MI> website.

**Site Visitor Name:** Tracy Moreno  
**Site Visitor Email:**

Hi Kati Adams. I am a frequent user (3-5 days per week) of the Meridian Riverfront Trail System. I have 2 dogs that accompany me during these excursions. I have always abided by the rules of being a good dog owner and picking up after my dogs. Upon using these trail so frequently and seeing a lot of dogs out there, other owners are certainly being responsible owners as well. I say this because the trails are very clean. This past 2 weeks, we have come upon horses on the trails. I am not even sure if they are allowed on these trails. I was surprised since there are many dogs, kids, and bikers that use these trails. It seems a little unsafe. But my biggest concern, and why I needed to write to you is about the mess these horses leave behind. It makes it quite an obstacle course to maneuver around the horse poop that is left behind. This also seems to be unsafe for walkers, runners, and bikers to maneuver at a higher speed. What are the rules for horse owners? Dog owners have poop bags and pick up their dog's messes. What are the rules for horse owners?

Thank you for your time,

Tracy Moreno

Meridian Township: Meridian Conservation Corps

Evaluability Assessment

Deanna Fife & Hannah Rethamel

Grand Valley State University

Apr 19, 2022

## **Introduction**

The conservation of green spaces has increasingly become a part of the public consciousness in recent history but preserving land and green spaces has always been an important part of good stewardship and conservation. Keeping communities green not only benefits the earth, but it also benefits the humans who reside on it; when humans and nature can live together in harmony, everyone is better off. However, efforts to maintain green spaces are often demanding - local officials need to contend with the weather, those who litter and otherwise destroy natural spaces, erosion, invasive species, and other destruction. Oftentimes, passionate community members will strive to help combat these issues, but find themselves stopped by a lack of resources, a lack of organization, or a lack of knowledge about how best to go about these efforts. In order to help combat these problems, Meridian Township established the Meridian Conservation Corps. The program brings community members together with educational resources and others who are passionate about preserving the environment, so that they can make an impact on the township's green spaces together (Meridian Conservation Corps).

This document is intended to provide an overview of the township and the Meridian Conservation Corps, as well as the township's readiness to engage in program evaluation and recommendations for how to improve readiness. It will also look at the Meridian Conservation Corps program and lay out recommendations for implementing program evaluation for this program specifically.

## **The History and Mission of the Meridian Township & the Meridian Conservation Corps**

Meridian Township, established in 1842, sits just east of Lansing. The township has 43,916 residents, according to the 2020 census, and covers 30.49 square miles, containing both Haslett and Okemos within its borders (Demographics). When Lansing was made the Michigan state capital,

Okemos – then called Hamilton – became one of the places to stop when making the trip from Detroit to Lansing, and Haslett, a farming community with a train station, experienced abundant growth (History). The area is still experiencing growth today, having gained about 4,000 residents between the 2020 census and the 2010 census, and the township works hard to maintain the beautiful natural environment that is a strong part of the local community.

Michigan is known for its beautiful natural environment; the state abounds with gorgeous beaches, hiking trails, and massive green spaces. Many communities thrive on the quiet, rural feeling that they provide to their residents, and Meridian Township is one of them. The township places a large focus on this saying,

Meridian Township residents enjoy quiet, safe, and well maintained connected neighborhoods with plenty of parks, pathways, and recreational opportunities for visitors and families to enjoy. With natural beauty on roads, interurban pathways, and vibrant business districts, Meridian Township is a great atmosphere for families, seniors, and young professionals. (Community)

In accordance with this, many of the programs conducted by Meridian Township are aimed at preserving the natural environment. The township offers a large system of parks, a nature center, a wetland protection program, a deer management program, and the Meridian Conservation Corps, which “is a program devoted to increasing community involvement in our parks and preserves” (Meridian Conservation Corps). Harnessing the efforts of well-intentioned community members concerned about conservation and preserving their home is a tall order, but it is one that the Meridian Conservation Corps (MCC) was created to fulfill. The MCC offers four ways to be involved. Each of these four programs

offers different ways for township residents to get educated and get involved in the preservation and stewardship of Meridian Township's natural spaces, making the community overall a better place.

The township certainly has plenty of green space to focus on preserving. With 1,600 acres of land that needs care, bringing together the passion of community members to help care for the land, and the resources and information that the township provides is a crucial goal for those who want to maintain the local natural spaces. The Meridian Conservation Corps aims to fill that need, and the program aims to "turn intention into action" (Meridian Conservation Corps) to help connect citizens with the tools they need to help preserve the township's green spaces.

All the goals of the Meridian Conservation Corps align well with the township's vision, which reads that the township strives to be

a destination for raising families, Meridian Township's vision is to achieve and maintain a sustainable and welcoming community with the highest quality of life for our residents.

This encompasses protecting our natural environment and our health and safety, and enhancing our prosperity, cultural heritage, diversity and recreational opportunities.

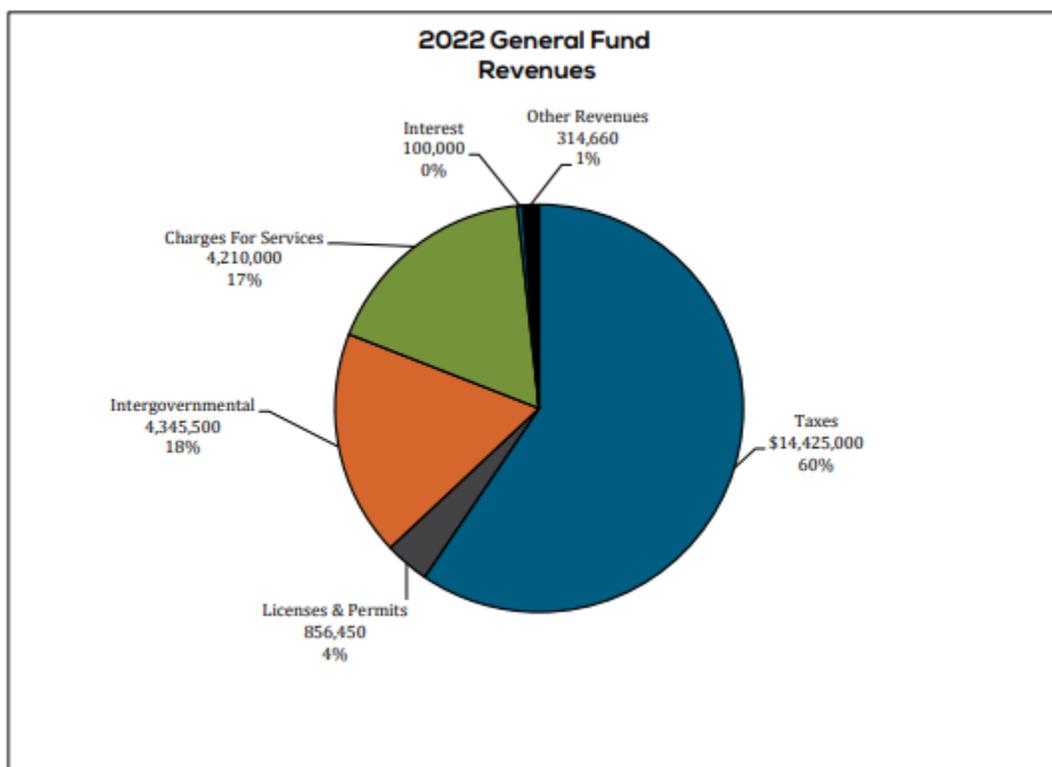
(Welcome to Meridian Township)

The township is home to "over 904 acres of parks, 956 acres of land preserves and nearly 20 miles of trails within the parks" (Parks & Recreation). Protecting and preserving that land is a crucial part of what township staff engages in, but it is more than the staff can do alone. Thus, the Meridian Conservation Corps was created in 2020 to concentrate the efforts of local community members in one place. Unorganized but passionate individuals may be able to make small amounts of progress towards the preservation of their community, but by bringing the many passionate members of the community together, the township and ensure that community members are able to direct their efforts in a

productive and informed way. By providing chances for people to work together in a way that they choose to get involved and giving them the opportunity to be educated about the conservation efforts they are engaging in, staff and use the Meridian Conservation Corps to ensure that the ongoing preservation efforts are conducted well, and are coordinated in order to get the most from the resources that the community is willing to provide – their manpower.

### Major Sources of Support

Meridian Township has a fairly large budget, with an estimated \$24.7 million in revenues with 164 regular full time equivalent positions and 49 seasonal/temporary positions. The township’s funding is derived mostly from taxes, with \$14.4 million dollars or 60% of their budget from that source. The next largest revenue source is intergovernmental revenues, primarily from the federal government. The other fairly large revenue source is charges for services which includes things like ambulance fees and public works services.



(Meridian Township, 2021, p. 30)

The Recreation and Culture department within the Township is a relatively small portion of the overall budget with approximately \$1.2 million in expenditures. “Parks, recreation, and land preserves are funded and maintained primarily through the Park Millage and the General Fund. Meridian Township has millages that support parks, pathways, seniors, land preservation, and recreation. (Meridian Township, b, p. 19) Of the funding available to the township there are a number of millages specific to parks work. These include the park millage, pedestrian walkway millage, and land preservation millage among others. The township also pursues grant activities and works to engage volunteers to maximize their impact. The parks department has 8 regular staff people. All parks related volunteer efforts are coordinated through the MCC, and there are volunteer events at least biweekly nearly year around.

### **Organizational Evaluability Assessment**

Program evaluation requires resources to be done well; staff must be well trained in the subject, resources must be dedicated to it, and data must be collected and analyzed. No organization can sit down to engage in program evaluation overnight; the process takes time, effort, and planning. However, the benefits of program evaluation far outweigh the effort that it requires. Organizations that conduct their own program evaluation control the timeline of evaluation, the quality, and don't need to contract with outside organizations to evaluate how well their programs are performing.

At the time of writing, Meridian Township does not engage in any form of formal program evaluation. The township staff are passionate about making their programs the best that they can be, but they are unfamiliar with the formal terminology and methods of program evaluation. Their programs

lack logic models and formal program theories, and while significant efforts are made to collect data on the programs, the assessment of that data is generally unstructured.

While the township does not formally engage in program evaluation, the culture amongst the staff is one that is dedicated to improvement and open to new ideas. The township does not want for innovative programs that strive to take the existing resources that they have access to – such as invested community members – and use them in a way that is beneficial to everyone. Organizational learning does not occur on a formal level, but the continued development of new programs, which are developed with the aid of surveys and in-depth five-year plans, highlight the staff's dedication to continued improvement, even if the formal academic elements are lacking.

There are no resources currently available for program evaluation, as there has been no push to engage in the process formally. However, leadership in the township is open to the idea, and if the resources could be set aside by township officials, staff seems willing to engage in evaluation capacity building – they simply need to be given the tools and knowledge with which to begin the process. Overall, Meridian Township seems like an excellent candidate for formal program evaluation to be undertaken, as staff is dedicated and invested in continued improvement.

If the township were to undertake efforts to engage in evaluation capacity building (ECB), they would need to formulate the policies and procedures to govern evaluation. While there are many things the township engages in that could be used in the evaluation plan, beginning the process with written policies and procedures is crucial to the evaluation process, and to ensuring the existence of ECB. The township would need to create an ECB oversight group to monitor the process, and determine which members of the staff will participate in the evaluation process, then determine how many additional staff members will be necessary to properly perform the evaluation and ECB activities. Michigan State

University could provide many resources to the township that could assist with evaluation, and could help ensure that in the early stages of ECB, township staff does not become overwhelmed.

Other structures contribute to an organization's success in ECB; Meridian Township will need to create an ECB plan which details the ways and means which the township will continue to engage with the evaluation process and ECB. Evaluation and ECB will need to be integrated into the culture, something that can be instituted with top-down enthusiasm from leadership. Finally, ECB will need to be worked into the strategic planning for the township, in order to ensure that ECB is considered during all stages of growth and development for the organization. Each of these changes can be built off of the others, giving Meridian a better understanding of its ECB and more control over how the township engages in its programs and planning.

### **Introduction to the Program**

The Meridian Conservation Corps is a fairly new program, created in 2020 to serve as the conduit through which citizens can volunteer to work on environment/parks efforts in Meridian Township (Meridian Township, b, p. 98) This program allows the township to harness the time, talent and expertise of the citizens to assist in managing the physical environment. The vision of the township is “to achieve and maintain a sustainable and welcoming community with the highest quality of life for our residents. This encompasses protecting our natural environment and our health and safety, and enhancing our prosperity, cultural heritage, diversity and recreational opportunities.” Clearly prominent in that vision is the protection of the environment. The Meridian Conservation Corps program directly and meaningfully contributes to that vision.

The MCC program actually consists of a number of smaller sub-programs or recurring events which each contribute to the overall goals of the program, which are outlined in this paragraph from their website:

The Meridian Conservation Corps is a program devoted to increasing community involvement in our parks and preserves. It is a vehicle to grow awareness of volunteer opportunities involving the care and conservation of Meridian Township's local green spaces. These places will grow on their own, but in order to thrive we need to take care of each aspect of their health. Natural areas are important for the physical and mental well-being of human life. We need nature and nature needs us. This program aims to utilize the community's knowledge and passion and gather it into one concentrated place: the conservation corps! (Meridian Township, a, p. 1)

The Meridian Conservation Corps is divided into four sub-programs, the first of which is forest watch, which enables citizens to choose an area of a park or preserve to monitor. This program also encompasses some citizen scientist efforts where data is collected and submitted to university or state environmental tracking efforts like vernal pool monitoring. Second is the clean-up crew, which encourages residents to collect and report litter in the township's natural spaces. The trail blazers focus on maintaining trails and creating new ones. They also work on trail accessibility, markers and mapping. Finally, the invasive species strike team, which focuses on educating citizens about invasive species and helps combat them by removing plants and mapping the areas where they appear (Meridian Township, a).

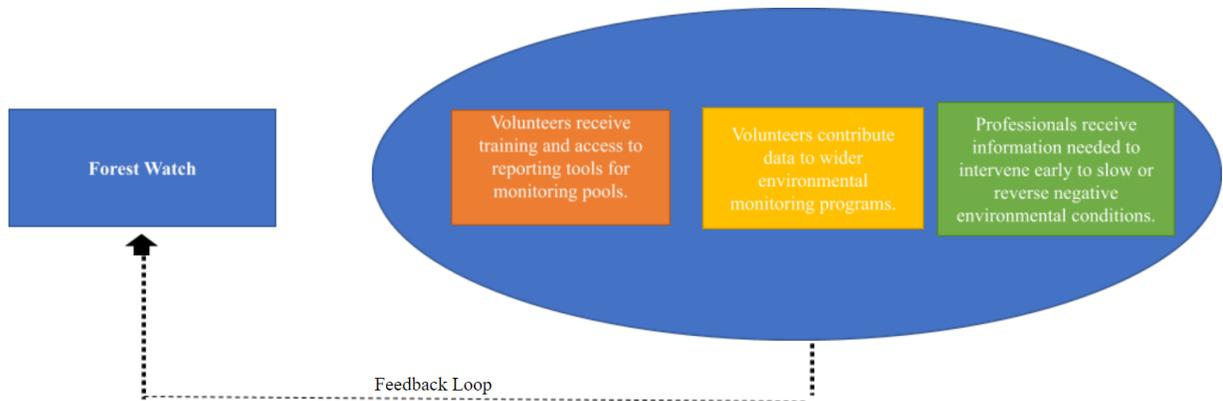
### **Evaluation Plan for the Meridian Conservation Corps**

A good program evaluation plan centers around having a clear understanding of what stakeholders want to program to be and what the desired outcomes are. To that end we have laid out the program theory, a comprehensive logic model, and an evaluation framework with data collection methods.

### **Program Theory**

Since the MCC is an umbrella program that holds several smaller sub-programs, identifying and modeling one program theory of change is challenging. Instead we have modeled the theory of change for each of the four major efforts.





### Logic Model

Again, because the MCC is a cluster of smaller programs the logic model displays many activities, outputs and outcomes. Several of the outcomes are contributed to by all efforts (i.e. citizens having positive experiences with the parks) and some are more specific to a certain sub-program (i.e. catching environmental changes).

**Meridian Conservation Corps**

Inputs	Activities	Outputs	Short Term Outcomes	Intermediate Outcomes	Long Term Outcomes
Parks department trucks/vehicles  Volunteer Knowledge  Volunteer Time & Work  Mileage Funding  Staff Time  Staff Resources/Tools  Other grants  Land/Parks  Parks tools and equipment	Recruitment & Training/Onboarding of Volunteers	*Training Events & Educational Events  *Community Awareness Events Held	*An increased number of people attending events	*Improved knowledge of MCC programs	*Citizens will continue to be willing to approve park mileages and otherwise support the township's parks programs. *Citizens will have consistently positive experiences with the parks and will spend more time in healthy outdoor recreation. *Positive attitudes of citizens towards the township will continue and grow.
	Volunteer Events - Invasive Species Stricke Team	*Bags of plants removed	*Reduction in the number of invasive plants *Increased ability of residents to identify and remove invasive species on their own.		*Natural spaces are maintained without significant disruption from invasive species.
	Volunteer Events - Clean Up Crew	*Trash will be removed from parks	*The parks will be clean.		*The parks will be enjoyed and used by the public.
	Volunteer Events - maintain local trails	*Calls/reports to the township of issues. *Creation of mapping and signage of township trails *Creation of new trails	*Trail issues are reported to the parks department so that prompt action can be taken. *Residents and visitors will be better able to access trails		*More people will use the trails. *Residents and visitors will have new trails to try on an ongoing basis.
	Vernal Pools Monitoring	*Data that is made available for state, university and other analysis	*Increase data available for state and other analysis		*Catch environmental changes sooner and take appropriate action to protect the environment.
	State guidance, training				

**External Context:** Weather, COVID-19, state resources to guide conservation and monitoring efforts, citizens involvement & preferences

**Evaluation Framework**

The evaluation framework lays out the outcomes that have been identified as desired and expected from the program and shows where the data will come from and how it will be measured. Meridian Township already has extensive resident surveys and many of the outcomes can be measured either using existing survey questions or by adding or modifying survey questions or their analysis to glean a little more information.

**Meridian Conservation Corps Evaluation Framework**

Outcome	Indicators	Data Sources	Data Collection Methods
Increased volunteerism	At least 5 new volunteers per month and an average of 1 first time volunteer at each event.	Volunteer sign up tracking excel, event registrations and attendance rosters.	A simple excel spreadsheet could be used to log the volunteers who sign up for the overall program and those who attend

			events. First time attendees would be flagged.
Citizens will continue to be willing to approve parks millages and otherwise support the township's parks programs.	Millages approved. Interim indicator: positive results on surveys, particularly in regard to park funding.	Election results. Parks and Recreation Community Survey (P&R Survey).	Election results will be generated by the township clerk's office. Add a question specific to funding on the survey.
Citizens will have consistently positive experiences with the parks and will spend more time in healthy outdoor recreation.	Increase visitor traffic at parks. Increased reported use of parks on surveys.	P&R Survey. Visitor counts.	The existing survey asks questions about park usage, so continue to administer that. Additionally, begin to count the number of vehicles visiting the parks on select low and high traffic days.
Positive attitudes of citizens towards the township will continue and grow.	Positive results on citizen surveys.	Citizen Survey	Overall approval rating. Overall parks rating.
Improved knowledge of MCC programs	Increased % of people reporting knowledge of program	P&R Survey or new mini-survey	QR code accessible surveys posted in general public and park locations.
Natural spaces are maintained without an increase in the presence of invasive plant species.	The same or fewer invasive plants counted.	Professional inspection	A bi-annual inspection of a sample of park locations to estimate invasive plant population change using distance sampling methods.
Reduction in the number of invasive plants.	Bags of invasive plants removed	Program manager event/activity log	Count of bags of invasive plants removed at each event

Increased ability of residents to identify and remove invasive species on their own.	Self-reporting by residents on survey	Participant Survey	Email survey to participants of the Invasive Species Strike Team asking them about removal of invasive plants outside the events.
The parks will be enjoyed and used by the public.	Continue high survey scores on park and preserve usage and increase the proportion of people reporting 20+ visits each year.	P&R Survey	Survey question about park and preserve usage.
Trail issues are reported to the parks department so that prompt action can be taken.	An initial response to the reported issue within 5 business days 90% of the time.	Excel log of received reports of park issues and action steps taken to resolve with dates.	Measure initial response days from the log.
Residents and visitors will be better able to access trails.	At least 5% improvement in accessibility score each year.	P&R Survey. Accessibility visits which generate an accessibility score.*	Bi-annual accessibility visits with feedback from accessibility testers both interview style and scored survey.
Residents and visitors will have new trails to try on an ongoing basis.	5 miles of new trails each year.	Measure and monitor miles of trails.	Existing park inventory could be utilized to report on this data.
Increase data available for state and other analysis	Increase in data reported to other agencies	State of Michigan and MSU provided data.	Request report from central data collections agencies on data generated from the township's geographic area. Compare year over year.
Catch environmental changes sooner and take appropriate action to protect the	Feedback from sponsor organizations that sufficient data has	Sponsor organizations, State of Michigan, Michigan State	Sponsor feedback

environment.	been collected for the area.	University	
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\*Accessibility visits would be a walk-through of the park/trail with people with various accessibility challenges like toddlers, people with limited vision, wheelchairs, strollers, mobility challenge and others.

**Conclusions**

The people working for Meridian Township are incredibly dedicated and hardworking, but they lack the formalized knowledge to engage in proper program evaluation and ECB. This initial evaluation concludes that while the staff does engage in many of the activities that would be necessary to include in proper evaluation, and that could contribute to effective evaluation capacity building, those pieces are not put together in a way that produces any sort of acknowledged, formal, program evaluation. The lack of terminology and academic knowledge about program evaluation and how it can help the organization grow is what is holding the staff back; county employees are already engaging in activities such as data collection, stakeholder consultation, and have clearly had the discussions that would lead to things like program theories – but none of these activities are formalized, and the individual dots are not connected to actually evaluate the programs.

Additionally, the staff is already doing a lot with a relatively small number of employees. The township manages an extremely high number of parks and other green spaces, and maintaining that land requires an enormous amount of work. This is coupled with a high number of programs, such as the Meridian Conservation Corps. The MCC is one program which contains four sub programs and is far from the only program the township staff is engaged in running. Evaluation is a long process that the programs of the township would clearly benefit from, but

evaluating each program would be a massive effort, especially starting the process from scratch, as an evaluator would be.

Meridian Township needs the formalized knowledge of someone trained in program evaluation and evaluation capacity building in order to make their culture one that is knowledgeable of the evaluation process. At this time, while evaluation would likely be well received by existing township staff, there is not enough formal knowledge on the subject for the township to engage in the process in a beneficial way. However, once program evaluation is introduced to the township, it is likely that it will quickly be adapted into the culture, as it is already governed by staff who believe in constant improvements and are continuously striving to improve their offerings in order to better serve their constituents.

### **Recommendations**

There are many small steps that can be taken to both improve the capacity of the township to engage in program evaluation and to formalize the use of program evaluation for the Meridian Conservation Corps. The recommendations are intended to provide a number of options to consider, but it is not necessary to use them all.

### **Recommendations to Maximize Evaluation Capacity Building**

Evaluation capacity building (ECB), defined as “The intentional work to continuously create and sustain overall organizational processes that make quality evaluation and its uses routine (Baizerman, Compton & Stockdill, 2002 p. 109)” is a new concept to Meridian Township. While township staff are largely unaware of the concepts of program evaluation, they are already engaging in a number of activities that would make a move to formal implementation of program evaluation much easier. They collect a lot of citizen/resident feedback as well as other community and parks data and engage in extensive planning activities. They regularly

engage consultants and other third parties to assist with surveying and planning efforts as well. Staff seem open to learning more about evaluation. The introduction of some formal evaluation concepts would allow the township to make small changes to their current activities which would allow them to measure progress towards program goals. The following are recommendations regarding growing the evaluation capacity of the township.

- Begin by collecting baseline data from township staff on how township policies, leadership, and structures are and are not supportive of evaluation and what level of knowledge people have about evaluation today. This could be done using the “The Readiness for Organizational Learning and Evaluation Instrument (ROLE)” survey or something similar (Preskill & Torres, 1999).
  - This would flag areas most in need of improvement or attention.
  - This also allows the township to measure change and growth to determine the effectiveness of ECB efforts.
- Engage in evaluation training and learning activities for all staff, particularly managers and program leads.
- Make time for staff to discuss how programs could be evaluated and what small changes could be made that would help them evaluate their work. Setting aside time for this work generally takes a concerted effort and may not happen organically.
- Consider hiring an outside evaluator or creating a full-time evaluator position on the staff. Township staff seem very professional and engaged, but they are also very busy. Adding a resource to help with evaluation capacity building would help minimize additional work for already busy staff people.

- If engaging the full township in evaluation capacity building (ECB) seems too daunting, given the variety of activity types (police, parks and recreation, etc.) and different physical locations, consider using one department as a test and then launching township wide.

### **Recommendations to Formalize Program Evaluation for the Meridian Conservation Corps**

Similar to ECB efforts, beginning formal program evaluation efforts for the Meridian Conservation Corps program would only take modest changes. This is due to the sophistication of the program, the planning efforts that the department undergoes in creating their 5 year master plan and the citizen input that they are already receiving through surveys. The following are recommendations for formalizing program evaluation for the MCC.

- Create an evaluation implementation plan
  - We recommend that the township either hires an outside evaluator or creates a program evaluation position on the township staff. With the size of the budget and the number of employees a staff evaluator would not be unreasonable.
  - A staff evaluator could be assisted by students, volunteers or members of the various township boards to add capacity.
  - Include staff time and budgetary resources needed for the evaluation process in the next budget cycle.
- Use the Meridian Township Parks and Recreation Master Plan as a starting point
  - Tie the goals of the MCC to the goals laid out in the master plan. The master plan is very detailed, is based on lots of citizen input and has three pages of goals and objectives. As the overarching strategic document of the parks department, programs within that department should tie back to the master plan.

- Consider updating the master planning process in the future to incorporate an evaluation framework that would lay out their desired outcomes, how they will know if the outcomes are achieved (indicators) and what data they will be collecting and analyzing to measure their progress. It isn't immediately clear from the master plan itself how they will measure success.
- Include building in evaluation tools and measures in future contracts for master plan assistance. Those tools could be part of the master plan or a separate supporting document.
- Use existing survey tools to gather even better data for evaluation of the MCC
  - Add a question that specifically asks about citizen support of parks millages. The public may support a higher millage rate than anticipated which would make even more funding available for the parks programs.
  - Use QR codes posted at park locations to gather feedback from people using the parks. The township already has QR code accessible surveys and could expand on this if additional surveys are needed or if they want to ensure survey results are from true park users.
- Seek stakeholder input specifically on the MCC
  - Particularly engage community members with disabilities or accessibility challenges for input in the planning stages and to do walk throughs of parks and trails with township staff. Accessibility was a focus in nearly all the township's planning documents for this year.
- Document and share the goals of the MCC

- The MCC has a really nice paragraph about why it exists and it's purpose, but no formal goals. Having the goals in writing is an essential part of evaluating how successful the program is. The program logic model documents the goals, but it should be reviewed and edited as needed.
- Focus the most effort on capturing the most important outcomes data.
  - The township is awash in volunteers for this program. While it would be great to know how volunteers find the program and if more volunteers are joining, it is probably less important than monitoring the impact on invasive species for example.

While the process of beginning formal program evaluation can be daunting, the staff at Meridian Township has proven to be dedicated to consistent improvement and the betterment of their community, providing them with a culture that values the qualities necessary to successfully engage in program evaluation and ECB. Although the process of program evaluation is never without bumps in the road at the beginning, the values that already make Meridian Township a place where large programs are undertaken with great success will help make program evaluation a central feature of the programs the staff engage in running.

Local programs and government already having citizen support will also aid the township in beginning the process of program evaluation - evaluation efforts are unfortunately never free, and the funding for the process will need to come from somewhere in order to ensure that existing staff are not pushed beyond their limits; as hardworking as they are, increasing their burden with program evaluation could be highly detrimental to the health and happiness of the staff. Instead, the township will need to make decisions on who will conduct the evaluation; someone with expertise in program evaluation will need to be hired - permanently, or as a

contractor - to lead the efforts and create a culture of evaluation at the township. However, once the township has gone through with the work of beginning the program evaluation process, it is likely that ECB and program evaluation will naturally and easily become a part of the culture for Meridian Township.

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## 8. Action Items



**To:** Park Commissioners  
**From:** LuAnn Maisner CPRP, Director of Parks and Recreation  
**Date:** May 5, 2022  
**Re:** May 10, 2022 Meeting Information

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## PRESENTATIONS

- A. Capital Youth Cycling Assoc.** – Donation check for the Pump Track at Eastgate Park.
- B. Eagle Scout Project** – Ethan Olds: Buffer Project Central Park South Pond

## ACTION ITEMS

**A. Eagle Scout Project Approval** – MOVE TO APPROVE THE PROPOSED EAGLE SCOUT PROJECT BY ETHAN OLDS OF DEVELOPING A NATURAL BUFFER AREA IN CENTRAL PARK SOUTH AND WORK UNDER THE DIRECTION AND ADVISEMENT OF EMMA CAMPBELL, STEWARDSHIP COORDINATOR.

## DISCUSSION ITEMS

**A. Horses on Trails** – We have experienced numerous complaints over the years from park users and concerns from staff about horse damage and droppings left on the multi-use trails in Meridian Riverfront Park. Horses are allowed by Ordinance currently but posted trail advisories against use during wet weather conditions seem to be ignored by many. Letters were sent to adjacent horse farms on Meridian Road requesting that horse droppings need to be removed.

**B. Inclusive Playground** – As we look forward to the 2023 budget process, an inclusive playground was identified need in the Parks and Recreation Masterplan 2022-2027 process. Visit this link for a great article on this topic: <https://nextcity.org/urbanist-news/playgrounds-designed-with-accessibility-in-mind-make-play-fun-for-every-kid>

**C. Capital Improvement Program** – The Meridian Township Budget Process begins in June and the CIP is part of this process. Now is the time for you to review the plan from last year and begin discussions on changes, additions or deletions for project planning for the next six years.

**D. Marshall Park Proposed Wetland Enhancement Project** – Marshall Park, located adjacent to Lake Lansing, is wet and soggy for most of the year, which makes it difficult to maintain. This area used to be utilized as a practice soccer field. Over the years, had become too wet. Stewardship Coordinator, Emma Campbell is proposing a project to plant wetland plants that are supported by these conditions. She will be in attendance to present the project.



## 9. Discussion Items

- A. Horses on Trails**
- B. Inclusive Playground**
- C. CIP - Capital Improvement Plan**
- D. Marshall Park Wetland Project**



## Parks & Recreation Department

# Seasonal Trail Advisory

### Spring and Fall

- \* Flooding may restrict park visitors to upland trails only.
- \* Muddy trails are restricted to walkers only. Bikes and horses will cause damage and erosion to the trails and are therefore prohibited at such times.

### Summer

- \* Please stay on the trails to protect wildflowers, wildlife and yourself from poison ivy and bee nests.

### Winter

- \* Please be respectful of skiers by walking to the side of ski tracks rather than through them.
- \* For your safety, stay off ice on ponds, drains and the Red Cedar River.

### All Seasons

- \* Pets must be on a leash no longer than 6' and under control of their owner in all areas of Township parks.
- \* Please remove all feces deposited by your pets.
- \* Motorized vehicles are prohibited on trails.

As the weather changes, so do conditions of our park trails. Please be a responsible park visitor, and use the trails accordingly.

Thank You.

*Charter Township of Meridian  
Thursday, October 19, 2017*

## Chapter 54. Parks and Recreation

**Cross references:** Outdoor assemblies, § 38-186 et seq.; streets, sidewalks and other public places, ch. 58; vegetation, ch. 82.

**State law reference:** Township parks, MCL 42.1, 41.421 et seq.

### Article I. In General

§ 54-1. through § 54-25. (Reserved)

### Article II. Public Conduct in Parks

#### § 54-26. Definitions.

[Code 1974, § 34-2]

The following words, terms, and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

**CAMPING**

The overnight lodging or sleeping of a person or persons on the ground or in any manner or in a sleeping bag, tent, trailer-tent, trailer coach, vehicle camper, motor vehicle, or in any other conveyance erected, parked, or placed within any park.

**COMMISSION**

The Charter Township of Meridian Park Commission.

**MOTOR VEHICLE**

Any vehicle which is self-propelled by any means whatever, including all devices in, upon, or by which any person or property may be transported or drawn, excluding wheelchairs or other ambulatory assistance devices or devices moved exclusively by human power.

**PARKING**

Permitting a vehicle to remain standing, whether occupied or not, when not loading or unloading.

**PARKING AREA**

Any off-street area, whether paved or not, which is designated for public parking.

**PARK, PARK PROPERTY and TOWNSHIP PARK PROPERTY**

Any property owned by the Township and delineated as a park or natural area in the Township's community park and recreation plan.

**RULES AND REGULATIONS**

Written rules and regulations and any amendments thereto concerning the use and maintenance of Township park property, adopted by the commission and approved by the Township Board, copies of which are available to the public at the Township parks office and the Clerk's office.

**Cross reference:** Definitions generally, § 1-2.

## § 54-27. Ordinance interpretation.

[Code 1974, § 34-27]

The commission shall be the body responsible for the interpretation of this article. A decision of the commission concerning an interpretation of this article may be appealed to the Township Board within 10 days of the date of the decision.

## § 54-28. Emergency powers.

[Code 1974, § 34-26]

The Township may establish emergency rules necessary to protect the health, welfare, and safety of park visitors and to protect park property, including, but not limited to, ordering all persons off park property, and closing all or any portion of a park.

## § 54-29. Township park personnel.

[Code 1974, § 34-25]

Nothing contained in this article shall be construed as prohibiting Township employees or agents from performing work or activities at any Township park at a time and in a manner directed by the Township.

**Cross reference:** Officers and employees, § 2-51 et seq.

## § 54-30. Special park use permits.

[Code 1974, § 34-3]

- (a) The commission or its designee may grant a permit for a special park use which otherwise is prohibited by this article when, in its discretion, the commission or its designee determines that adequate sanitary and safety precautions will be taken, that the activity will not unreasonably interfere with the use of the park and neighboring property by others, and that there is adequate security against damages to the Township.
- (b) An activity which involves an exhibition or performance which may reasonably be expected to cause large numbers of persons to congregate shall be considered a special park use requiring a permit under this section. Outdoor gatherings of persons in excess of 500 in number must also comply with the provisions of Chapter 38, Article V, regulating to outdoor assemblies.
- (c) Application for a special park use permit shall be made 45 days in advance of the time of any special park use being requested.

## § 54-31. Fees and charges.

[Code 1974, § 34-4]

Fees and charges may be assessed for the use of any park facility, land, area, or program in accordance with the rules and regulations on park user fees.

## § 54-32. Hours.

[Code 1974, § 34-5]

No person shall remain upon park property between sundown and sunrise except by a special park use permit.

## § 54-33. Reservation of facilities.

[Code 1974, § 34-6]

A group or gathering of 10 or more persons may use an area within a park, to the limited exclusion of others, only by a special park use permit in accordance with the rules and regulations on reservations. The use of any athletic field within park property for organized competition or practice shall be by special park use permit.

## § 54-34. Destruction of park property.

[Code 1974, § 34-7; Ord. No. 2003-02, 1-7-2003]

No person on Township park property shall damage, deface, destroy, or remove any shrub, tree, flower, or natural resource or other public property or throw or deposit trash or litter on park property except in designated containers. Any violation of this section is a misdemeanor punishable as provided by this Code.

## § 54-35. Park wildlife.

[Code 1974, § 34-8; Ord. No. 2003-02, 1-7-2003]

No person on Township park property shall hunt, trap, catch, wound, or kill or attempt to trap, catch, wound, or kill any bird or animal or molest or rob any nest of any bird or any lair, den, or burrow of any animal. Fishing shall be allowed in a Township park, subject to all state and local laws. Any violation of this section is a misdemeanor punishable as provided by this Code.

**Cross reference:** Animals, ch. 10.

## § 54-36. Firearms and other weapons.

[Code 1974, § 34-9; Ord. No. 2003-02, 1-7-2003]

No person shall, at any time, bring upon the Township park property, nor possess or discharge anywhere upon such property, any firearm of any description, or air-rifle, spring gun, bow and arrow, sling, or any other form of weapon potentially dangerous to wildlife and human safety, or any instrument that can be loaded with and fire blank cartridges, or any kind or trapping device. Shooting into park property from beyond park boundaries is prohibited. This section however, shall not apply

to any duly appointed law enforcement officer while carrying out the duties and responsibilities of their position. Any violation of this section is a misdemeanor punishable as provided by this Code.

## § 54-37. Dogs and other pets.

[Code 1974, § 34-10]

- (a) Permitted. Dogs and other pets may be brought upon park property, unless posted otherwise.
- (b) Control. Any dog on park property shall be upon a leash of six feet or less, unless posted otherwise, and shall be under the immediate control of a competent person at all times.
- (c) Removal of feces. Any person having custody of a dog on park property shall immediately remove all feces deposited by such dog on any public footpath, athletic field or other area frequented by the public, and shall dispose of same in a sanitary manner.
- (d) Public buildings. No dog or pet shall be allowed to enter any public building.
- (e) Application to guide, service, or leader dogs. This section does not prohibit the use of guide dogs, service dogs, or leader dogs as provided and defined in § 502c of the Michigan Penal Code (MCL § 750.502c).

## § 54-38. Bicycles.

[Code 1974, § 34-11]

Bicycles may be ridden in any Township park, unless posted otherwise. Bicycles ridden on park property shall remain upon designated paths, trails, or roadways.

## § 54-39. Motor vehicle traffic and parking.

[Code 1974, § 34-12]

- (a) No person shall operate or park any motor vehicle of any kind, including snowmobiles and motorcycles, except maintenance and security vehicles, upon any park land, including public footpaths, except on public roads and designated parking areas.
- (b) No person shall leave, or cause to be left, any motor vehicle upon park property when the park is closed. Members of the Township department of public safety are authorized to remove any such motor vehicle at the owner's expense.

**Cross reference:** Traffic and vehicles, ch. 74.

## § 54-40. Horses and other draft animals.

[Code 1974, § 34-13]

A horse or other draft animal may be brought upon park property, unless posted otherwise, as long as the horse or draft animal is under the immediate control of a competent person at all times. No person shall ride a horse on park property in a careless, negligent, or reckless manner so as to endanger persons or property.

**Cross reference:** Animals, ch. 10.

## § 54-41. Camping.

[Code 1974, § 34-14]

No person shall camp in a Township park, except in an area designated for such purpose, and in accordance with the rules and regulations on camping in parks and public grounds.

## § 54-42. Fires.

[Code 1974, § 34-15; Ord. No. 2003-02, 1-7-2003]

- (a) The following provisions shall govern fires in the Township's parks:
- (1) No person shall willfully set or cause to be set on fire any tree, woodland, brushland, grassland, or meadow within park property.
  - (2) No person shall drop, throw, or otherwise scatter lighted matches, burning cigars, cigarettes, tobacco paper, or other flammable materials within park property.
  - (3) No person shall build any fire within park property except in designated grills, firepits, receptacles, or open spaces designated for such purpose. All cooking within park property shall be restricted to Township supplied grills.
  - (4) Fires within park property shall not be left unattended. All fire shall be extinguished upon leaving the immediate vicinity.
  - (5) Fires within park property are subject to the conditions and restrictions of the Township's burning ordinance.
- (b) A violation of Subsection 54-42(a)(1) is a misdemeanor punishable as provided by this Code.

**Cross reference:** Fire prevention and protection, ch. 26.

## § 54-43. Fireworks.

[Code 1974, § 34-16; Ord. No. 2003-02, 1-7-2003]

No person shall fire, discharge, or have in their possession any rocket, firecracker, torpedo, squib, or other firework or any substance of an explosive nature within park property. Any violation of this section is a misdemeanor punishable as provided by this Code.

**Cross reference:** Fireworks, § 26-1.

## § 54-44. Swimming.

[Code 1974, § 34-17]

No person shall swim or bathe in any drain or pond located within park property.

## § 54-45. Boating.

[Code 1974, § 34-18]

No person shall bring, use, or navigate any boat, canoe, raft, or other watercraft upon any drain or pond located within park property, except at such times and in such places as may be designated for such purpose.

### § 54-46. Model airplanes.

[Code 1974, § 34-19]

No person shall operate a motorized model airplane on Township park property.

### § 54-47. Loudspeakers.

[Code 1974, § 34-20]

No person shall use a loudspeaker, public address system, or amplifier within park property without a special park use permit.

### § 54-48. Skating and coasting.

[Code 1974, § 34-21]

No person shall skate, walk, or go upon any ice upon any drain or pond within park property, except at such times and in such places as may be designated therefor. No person shall coast with a hand-sled, bob, cart, or other vehicle on wheels or runners on park property, except at such times and in such places as may be designated therefor.

### § 54-49. Peddling and soliciting.

[Code 1974, § 34-22]

No person on park property shall peddle or solicit business of any nature whatsoever, distribute handbills or other advertising matter, post any unauthorized sign on any park land, water, structure, or property, or use such land, water, structure, or property for peddling or soliciting without a special park use permit.

### § 54-50. Unlawful obstruction.

[Code 1974, § 34-23]

No person shall by force, threat, intimidation, unlawful fencing, or enclosing, or by any other means, prevent any person from entering, leaving, or making full use of any park property. This section, however, shall not apply to any duly appointed law enforcement officer when carrying out the duties and responsibilities of his position.

### § 54-51. Installations, construction, or maintenance.

[Code 1974, § 34-24]

No installation, construction, or maintenance shall be made above or below ground, across or beneath Township park property by any person, except duly authorized park personnel, without the prior written permission of the Township for such installation, construction, or maintenance specifying in detail the work to be done and any conditions to be met.

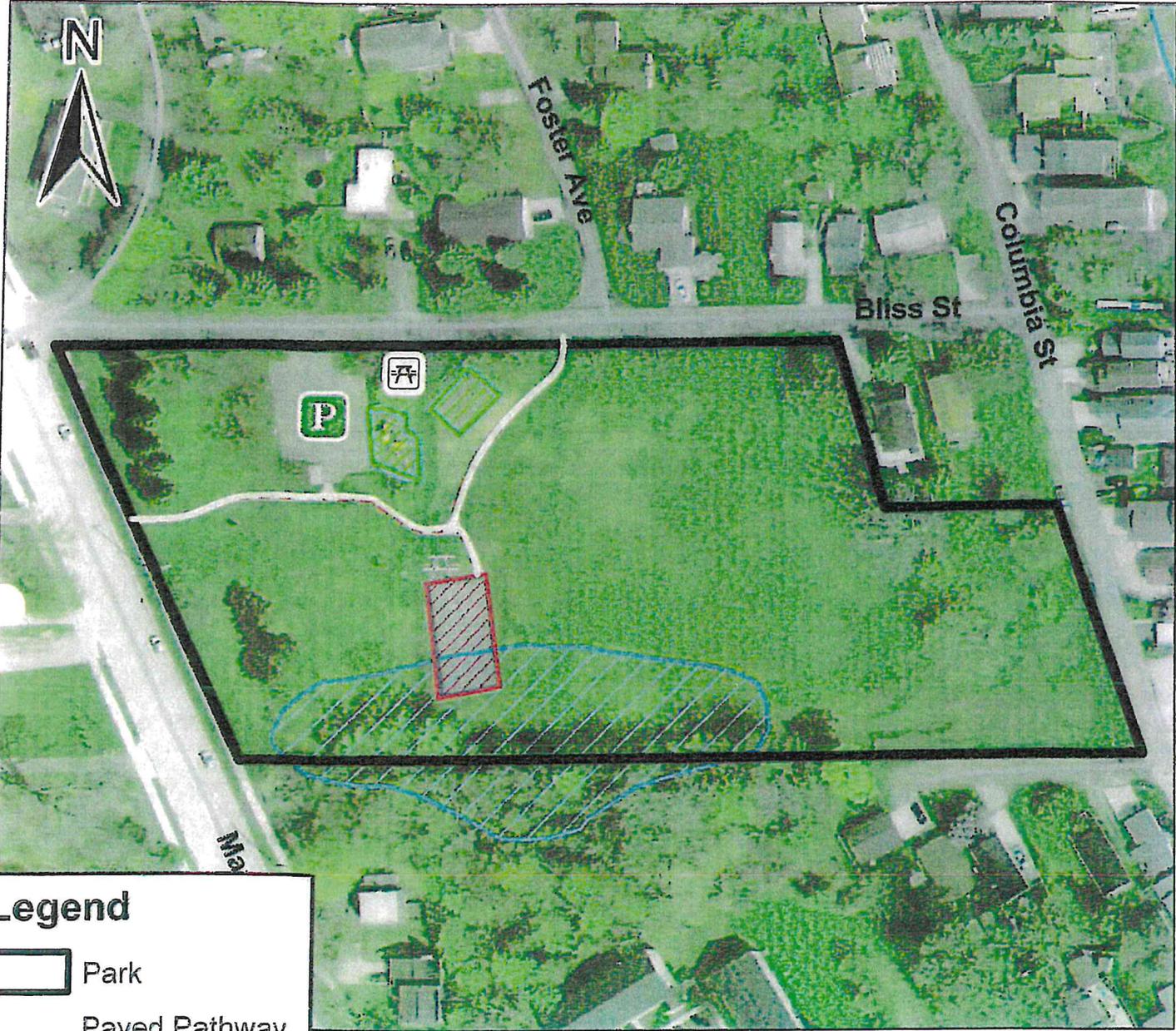
## 2022-2027 CIP – PARKS

*The Meridian Township Capital Improvement Plan is a six-year planning and budgeting tool that is reviewed and updated annually by the Park Commission and is based on project need and community input. It is a partner document to the Goals and Objectives, and Action Plan from the Five Year Parks and Recreation Master Plan.*

<u>Year</u>	<u>Project Name</u>	<u>2022</u> <u>Cost</u>	<u>Funding Source</u>
2022	Towner Road Park Playground	\$400,000	MNRTF/Park Millage
2022	Parking Lot repaving/expansion (Central Park South, N. Meridian Rd Park HNC, Marshall)	\$200,000	Park Millage
2022	New Park Signs and site furnishings	\$50,000	Park Millage
2022	Shade Structure at Towner	\$20,000	Park Millage
2022	Floating Islands Purification System	\$18,000	Park Millage
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<b><u>2023</u></b>			
2023	Central Park Pavilion Renovation, Landscaping	\$150,000	Park Millage
2023	Marshall Park Playground Replacement	\$150,000	Park Millage, Grants
2023	Okemos Road Parcel Development	\$400,000	Park Millage, Grants
2023	New Park signs	\$20,000	
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<b><u>2024</u></b>			
2024	Ottawa Hills Playground Replacement	\$ 75,000	Park Millage, Grants
2024	New Park Signs	\$20,000	
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<b><u>2025</u></b>			
2025	Nancy Moore Park Playground	350,000	Park Millage/grant
2025	Nancy Moore Park Pavilion	\$300,000	Park Millage/grant
2025	Nancy Moore Park Loop Trail	<u>\$90,000</u>	Park Millage/grant
<hr/>			
<b><u>2026</u></b>			
2026	Hillbrook Park Restroom Building	\$250,000	Park Millage, Grants
2026	Wonch Park Improvements – Restroom, Streambank, launch, WiFi	\$500,000	Park Millage, Grants
2026	Snell-Towar Recreation Center Improvements	<u>\$185,000</u>	Park Millage, Grants
<hr/>			
<b><u>2027</u></b>			
2027	Central Park Improvements-Splashpad	\$500,000	Park Millage, Federal or State Grants
2027	Meridian Riverfront Park Trail Improvements	\$1,000,000	Park Millage, Pathway Millage, Federal/State Grants

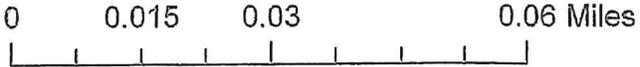
**Other items for future discussion/consideration:** Skate Park; Splash Pad

# Marshall Park



**Legend**

- Park
- Paved Pathway
- Playground
- Basketball Court
- Picnic Area
- Parking
- Wetland
- Roads



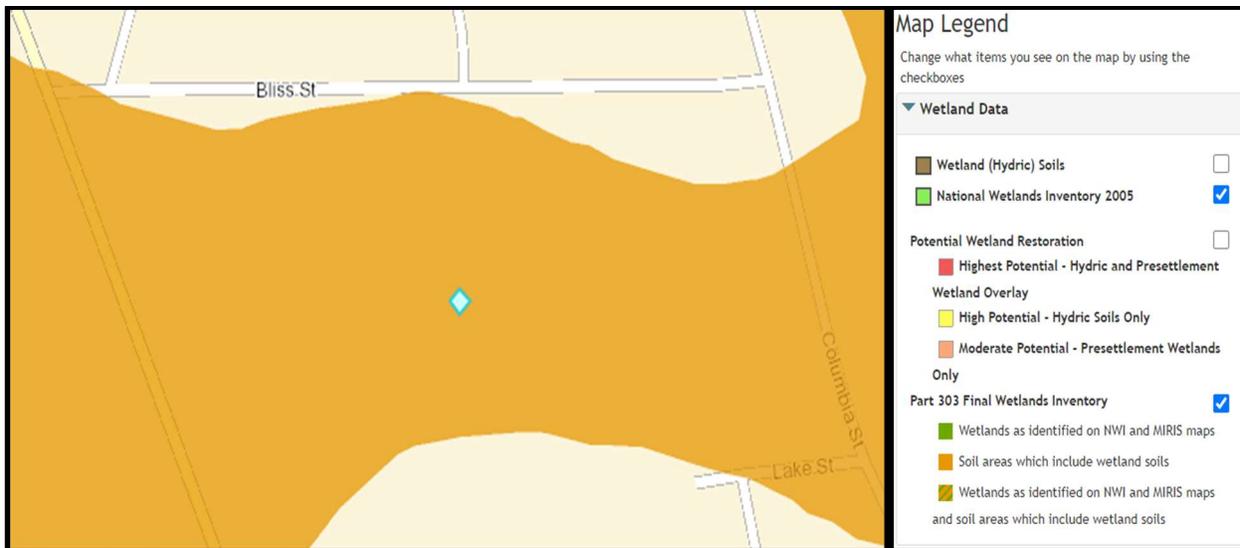
**Address: 6105 Marsh Road, Haslett**  
**Area: 5 acres**  
**Amenities: Basketball Court, Picnic Area, Play Equipment, Multiuse Field**

## Marshall Park Wet Meadow Proposal

A wet meadow in Marshall Park was originally discussed as a way to reduce mowing in parks. There are some areas of park land that remind saturated or with standing water for the majority of the year. Marshall Park has a high water table, which makes it difficult to mow throughout the year. We have also had neighboring residents request to make better use of the green space at Marshall, saying it was too open, with not enough trees. One of those residents has already purchased trees and a bench for the park, but planting more trees is no longer suitable for this park. A wet meadow is a perfect solution to bring in more attractive plants that will actually work with the location and soil conditions of the area. In turn, the native plants installed will produce large root systems that will help soak up water in the rest of the park, leaving the surrounding turf in better condition for mowing.

With a nearby drainage ditch that contains wetland plants, a wet meadow will relieve this ditch from becoming too flooded, as it takes on overflow from large rain events. Storm water management is a large issue moving forward in the Township, so more of our parks could be contributing to filtering runoff from the surrounding roads, as well as flood mitigation. If this project is successful, it would be a wonderful demonstration for other park areas that are suitable. Turf is not a useful plant for meeting any of the above objectives, so it is time to look for alternative solutions.

### Marshall Park - EGLE Wetlands Map Viewer



(Above) This section of map indicates that Marshall Park is mostly made up of wetland soils. Turf is not a suitable plant to grow in these areas since the root systems are very shallow, at only a few inches long, and do not soak up enough water.

Please see the back of this page to view the proposal from Vern Stephens who specializes in this kind of work.

**Designs By Nature - Proposal  
 Proposal for Services  
 Meridian Township  
 January 25, 2022**

This proposal covers services to Meridian Township for establishing a wet meadow on .4 acres of township property, Marshall Park. The following are services proposed:

Sedge Seed (Michigan genotype)	
1# PLS/.4 Acre	\$385.00
Seed pick-up and mixing	\$125.00
Seed installation/Herbicide Application	
Planting	\$150.00
Herbicide application/travel	\$400.00
Herbicide (Glyphosate)	\$100.00
Wildflowers (Michigan genotype)	
Wet meadow prairie species seed	\$250.00
10 Flats wet meadow plugs @ \$40.00/flat	\$400.00
Wildflower Installation (September 2022)	\$400.00
Wildflower Seed Installation (After Nov 1, 2022)	\$200.00
<b>Total</b>	<b>\$2,410.00</b>



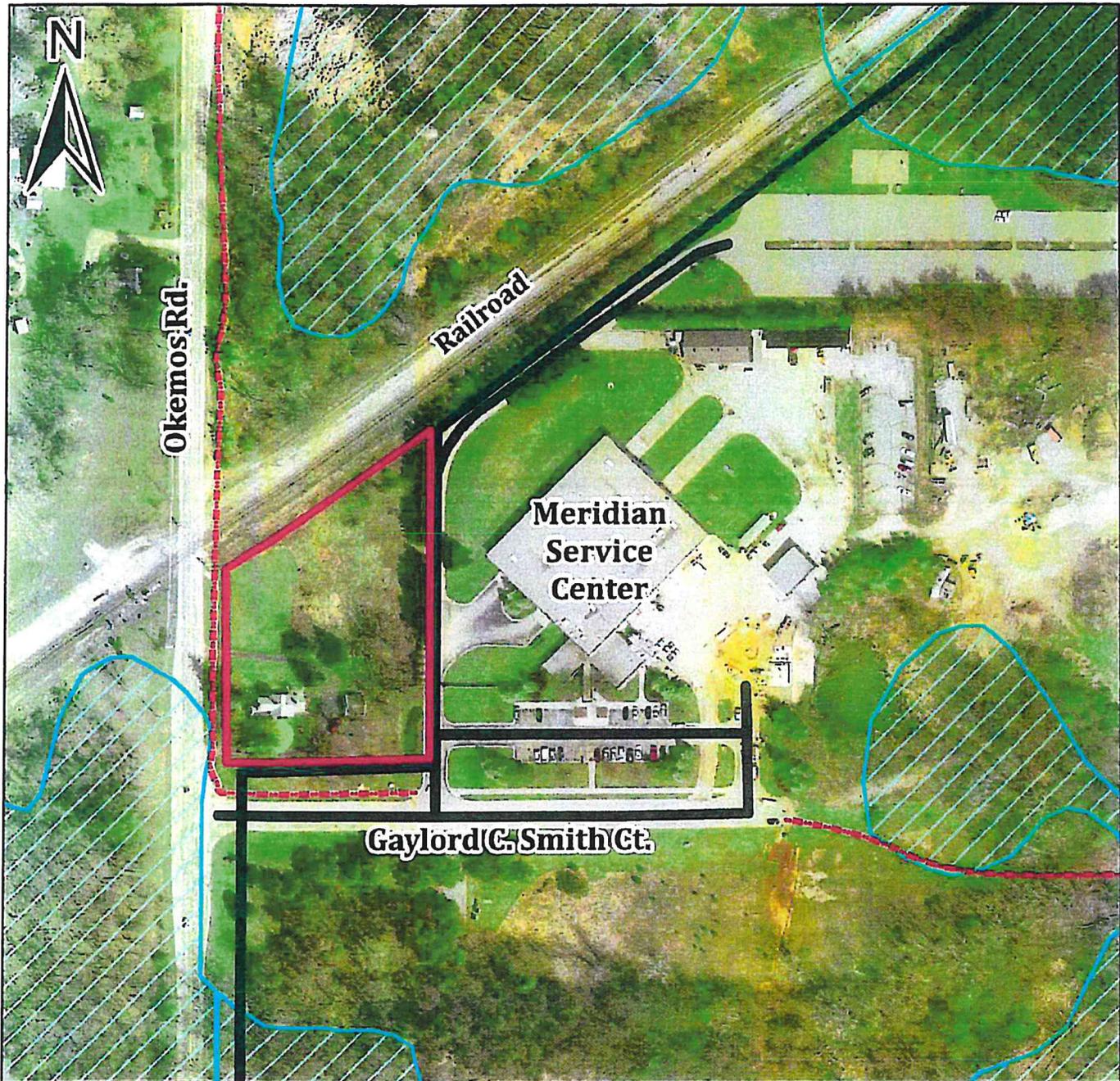
(Left) Original aerial of wet area to be converted. This area is where most of the water pools. The surrounding area does get saturated, but with .4 acres planted with deep roots, we hope to help dry up the surrounding area.



## **14. Site Visit**

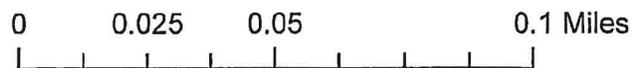
### **5280 Okemos Road**

# 5280 Okemos Rd.



**Legend**

-  Nancy Moore Park
-  Driveway
-  Paved Pathway
-  Wetland



**Subject property outlined in red**  
**Parcel Number: 33-02-02-16-200-011**  
**Area: 1.86 acres**



## **8. Additional Packet Items**

**Presented to Park Commission**  
**May 10, 2022**

# Eastgate Park

**2018**

Made pumptrack rideable, second jump line, replaced skills features.



**2019**

Maintenance on dirt, more skills features, and drops.



**2020**

"Grom" Loop around the perimeter of Eastgate Park - first year of CYC Adventure Bike Club - 43 Kids



**2021**

Major re-build. New jump line and start mound. Second year of CYC Adventure Bike Club - 93 Kids



**2022**

Maintenance on dirt and signage. Third year of CYC Adventure Bike Club - 130 Kids in 2 locations (Eastgate and Burchfield Parks)



## Concerns about duck hunting on Lake Lansing

(comments for the 5/10/2022 Meridian Township Parks Commission meeting)

by

Susan Andrews & Claudia Kerbawy

As you know, Lake Lansing is a very developed/populated lake. For the first time in years, residents observed duck hunting in the fall of 2020, and again, in October, 2021. Understandably, residents have safety concerns about guns being fired so close to boaters/kayakers on the lake as well as Lake Drive and its bike and walking paths. There is evidently one very small area greater than 450 feet from homes (a required isolation distance for hunting in an unrestricted lake) near the south end of the lake. Depending on exact boundaries, this small area is either in or adjacent to the Meridian Township Lake Lansing Marsh Park (see attached map). Attempts by residents to have township police and the Michigan DNR ask hunters to leave were unsuccessful. Both the DNR & police said that there was nothing posted to alert hunters that it was a no hunting area.

In 1925, the Michigan Legislature established Lake Lansing (then known as Pine Lake) as a Wild Life Sanctuary (see attached act). In 2006, the DNR referenced the act in addressing the Lake Lansing Property Owners' Association (LLPOA) application for control of the Canadian Goose population on the lake. This is what many residents had thought was the case. Apparently, at one time there were signs posted noting the Sanctuary Lake status, but these signs are long gone.

We asked the DNR to repost Sanctuary Lake/No Hunting signs. The DNR then asked for a review by the Attorney General's Office. Through Senator Hertel Jr.'s Office we recently learned that the AG's guidance was to not re-post signs. However, the Sanctuary Lake status has not been revoked. We met with Representative Julie Brixie on 4/26/2022 and discussed the situation. At this point it seems the most viable route is to work with Meridian Township and Ingham County to pursue posting signs which would identify the park status at the southern end of the lake (and around the lake for that matter) and that this is a no hunting area.

In the late 1970's through the 1980's and perhaps 1990's, there was a large, beautifully painted wooden sign along Lake Drive near Carlton Street that identified the Lake Lansing Marsh Park. It eventually deteriorated, fell down and was removed, but was not replaced. We would like to see that sign replaced, also indicating the Township Park Rules which prohibit hunting. The LLPOA would be willing to assist in paying for or perform the sign construction and placement. We are asking to work with the Parks Commission and staff to create and post such a sign at the Lake Lansing Marsh Park (see map).

We will also be working with the County to address no hunting signage at the boat launch, and have a meeting to initiate that discussion next week.

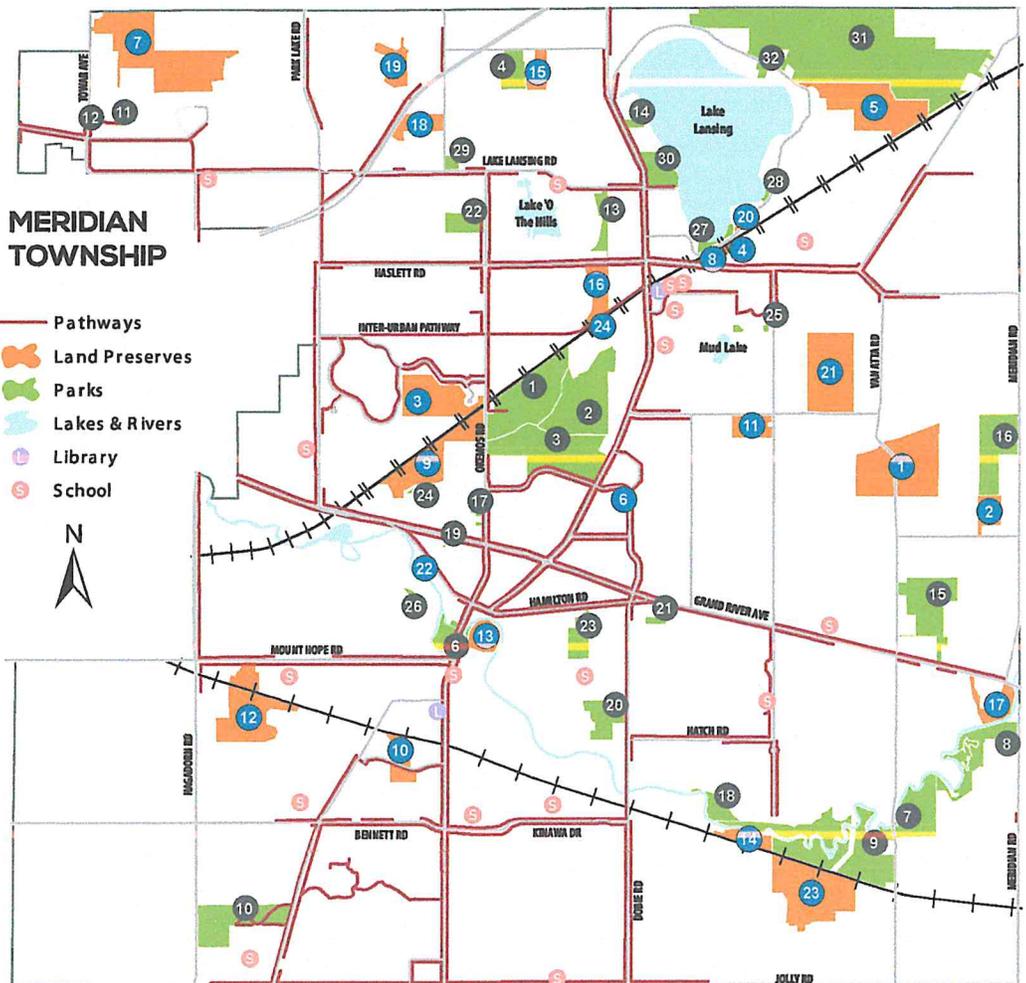


PARKS & AMENITIES

		Parking	Trails (H-terrain) (P-paved)	Natural Area with No Amenities	Lake   Pond   Stream   Drain   Wetland	Bioretention   Permeable Pavement	Perennial   Multi-story   with wet areas	Drinking Fountains	Electricity	Cellular	Play (swings)	Fishing Access	Fishing Dock	Cause   English Larch	Boat Launch	Blow   Pave   Wetland Overlook Deck	Play Equipment	Nature Exploration Area	Stargazing Trail	Score   Football   Lacrosse Fields	Baseball   Softball   Diamond	Handball Court	Pickleball Court   Tennis Court	Sand Volleyball Court	Skating Hill   Pump Track	Miniature Gts   Geop Ball	Open Space for Activities	Flower Equipment
1	Nancy Moore Park 1960 Gaylord C. Smith Court	40	x	NIP																								
	Parks & Recreation Office																											
2	Central Park 5151 Marsh Rd	197	x	N																								
	Township Building/Public Safety Building																											
	Meridian Historical Village																											
	Neloms Learning Center																											
	Farmers' Market Pavilion																											
3	Central Park South 1990 Central Park Dr	15	x	NIP																								
4	Towner Road Park 2055 Towner Rd	23.6	x	P																								
5	Worch Park 4555 Olamos Rd	15	x	P																								
6	Ferguson Park 4540 Olamos Rd	5.7	x																									
7	Harris Nature Center 3990 Van Atta Rd	48	x	NIP																								
8	Eastgate Park 4203 S. Meridian Rd	53	x	N																								
9	Legg Park 3891 Van Atta Rd	103	x	N																								
10	Hartrick Park 3685 Hulett Rd	60.7	x	NIP																								
11	Snell-Towner Recreation Center 6146 Porter St																											
12	Towner Park 6146 Porter St	4	x																									
13	Hillbrook Park 1747 Lake Lansing Rd	16.4	x	N																								
14	Marshall Park 6105 Marsh Rd	5	x																									
15	Ted Black Woods 540 Grand River Ave   4714 Van Atta Rd	74	x	N																								
16	North Meridian Road Park 5191 N. Meridian Rd	60	x	N																								
17	Ottawa Hills Park 4980 Hillcrest Ave	3																										
18	Red Cedar Natural Area 1435 Oscoda Rd	56																										
19	Cedar Bend Heights Neighborhood Park 2280 Kenmore Dr	0.33																										
20	Sander Farm Preserved Natural Area 4344 Doble Rd	34		N																								
21	Forest Hills Park 4625 Northview Dr	4		N																								
22	Brettin Woods 5851 Olamos Rd	20	x	N																								
23	Tacoma Hills Park 1815 Hamilton Rd	22		N																								
24	Schriener Park 5039 Algonquin Way	1																										
25	Orlando Park 1275 Orlando Dr	1.3		P																								
26	Indian Hills Park 4730 Nakoma Dr	3																										
27	Lake Lansing Marsh 1430 Lake Dr	46																										
28	Spengler Marsh 5929 Lake Dr	3.3																										
29	Newton Road Park 6025 Newton Rd	5		x																								
30	Lake Lansing Park South (Ingham County Park)	30	x																									
31	Lake Lansing Park North (Ingham County Park)	530	x	N																								
32	Lake Lansing Park Boat Launch (Ingham County)																											

LAND PRESERVES

- Davis/Foster Preserve
- Foster-Crouse Preserve
- Hubbel Preserve
- Kuzma Preserve
- Lake Lansing North Preserve
- Newman Equities Preserve
- Towner Woods Preserve
- Lake Lansing South Preserve
- Central Meridian Uplands
- Sower Woods Preserve
- Tihart/Cornell Wetland Preserve
- Southwest Meridian Uplands Preserve
- Sumbal Preserve
- Red Cedar Glen Preserve
- Towner Wetland Preserve
- Meridian Central Wetland Preserve
- Red Cedar River East Preserve
- Forest Grove Preserve
- North Ridge Preserve
- Tank Wetland
- Tihart Preserve
- Mandenber Woods
- Ponderosa Preserve
- Nemoke Preserve



For reservations and park information  
**517.853.4600**  
**meridian.mi.us**  
**Maps Available for Download**



# Meridian Township Park Rules

- Parks are open daily from dawn to dusk.
- Dogs must remain on a leash at all times.
- Visitors are responsible for cleaning up after their pets.
- Horses, llamas and other draft animals may be brought into the park when under the immediate control of a competent person.
- Stay on the designated trails.
- To minimize erosion, muddy trails are restricted to walkers only.
- During winter, please be respectful of skiers by walking to the side of the ski tracks.
- Motorized vehicles are restricted to designated parking areas only.
- Fires may be built in designated grills and must be attended at all times.
- Fishing is permitted with a valid state fishing license.
- Please do not disturb the wildlife in the park. Hunting, trapping, catching, killing or removal of any animal on park land is prohibited, as is disturbing or robbing nests, dens or burrows of any animals.
- Picking and collecting of wildflowers, fruits, mushrooms, downed wood or any plant material is prohibited.
- Campfires, camping, the flying of model airplanes or drones, fireworks and loud noise/music or amplifiers are prohibited.
- Swimming and ice skating are prohibited on ponds, drains and the Red Cedar River.
- Reservations for pavilion or athletic field use may be arranged by calling the Meridian Township Parks and Recreation Office at 517.853.4600.
- For detailed information on all Meridian Township Park Ordinances, visit [www.meridian.mi.us](http://www.meridian.mi.us).

**\*Help the parks\* \*Be our eyes and ears\***

If you observe vandalism or a violation of any ordinance, please report the incident to the Meridian Township Police Department non-emergency number at 517.332.6526. Thank you!

**From Michigan Compiled Laws Complete Through PA 52 of 2022 (highlighting added)**

**Chapter 317 – Game Breeding and Protection**

**PINE LAKE WILD LIFE SANCTUARY**

**Act 80 of 1925**

**(317.221 – 317.225)**

AN ACT to create a district or refuge in Ingham county to be known as “Pine Lake Wild Life Sanctuary” in which it shall be unlawful to kill, catch, or destroy any wild game animals, wild game or song birds, their offspring or eggs, and to protect fish in any breeding ponds that may be constructed for that purpose and to provide a penalty for the violation thereof.

**History:** 1925, Act 80, Eff. Aug. 27, 1925

**317.221 Pine Lake wild life sanctuary; territory.**

**Sec. 1.**

The territory situated in the county of Ingham, described as follows, to-wit: Commencing at a point on the line between the counties of Clinton and Ingham where the north and south quarter line of section 3 in township 4 north, range 1 west, intersects said county line; thence running east on said county line to a point where the north and south eighth line in the northeast quarter of section 2, township 4 north, range 1 west, intersects the county line; thence running south along said eighth line to a point where said line intersects what has heretofore been known as the right-of-way of the Michigan United Railway; thence running southwesterly along said right-of-way to a point where the right-of-way would have intersected with the road or street running east and west through the village of Haslett; thence running west along said street to where it intersects a portion of a certain improved gravel road; thence running north along said highway and the east side of what is shown on the plat of the village of Haslett as the farm of Charles Benson, and continuing along said road until it intersects the north and south quarter line of section 3 as aforesaid; thence running north along the road and the said quarter line to the place of beginning, shall be and constitute a refuge for wild game animals and game birds known as “Pine Lake Wild Life Sanctuary.”

**History:** 1925, Act 80, Eff. Aug. 27, 1925 ;-- CL 1929, 6123 ;-- CL 1948, 317.221 ;-- Am. 1955, Act 12, Eff. Oct. 14, 1955

**Compiler's Notes:** Pine Lake is now known as Lake Lansing.

**317.222 Pine Lake wild life sanctuary; unlawful acts; permit to hunt carnivorous game; permit to keep certain game; supervision; prima facie evidence.**

**Sec. 2.**

It shall be unlawful for any person to hunt, trap, capture, kill or otherwise destroy any wild game animals, wild game or song birds, their young offspring or eggs in the district hereinbefore described, or to molest the homes, nests or houses of such wild game animals or wild game or song birds. A permit may be granted by the conservation commission to a person or persons to hunt carnivorous birds and animals on said premises. Nothing herein contained shall be construed to prohibit any person from keeping the animals or birds herein mentioned in captivity under a permit granted therefor by any law now in force or which may be hereinafter enacted. The state department of conservation is specifically

charged with the supervision of the refuge hereby created and with the enforcement of the provisions of this act. It shall be prima facie evidence of hunting on said refuge for any person other than an officer charged with enforcing the provisions of this act to be found thereon with a loaded gun outside of his home or buildings owned or occupied by him.

**History:** 1925, Act 80, Eff. Aug. 27, 1925 ;-- CL 1929, 6124 ;-- CL 1948, 317.222

**317.223 Pine Lake wild life sanctuary; unlawful to take fish.**

**Sec. 3.**

It shall be unlawful for any person to interfere with or destroy or take away in any manner any of the fish that are being reared in any of the ponds in said territory.

**History:** 1925, Act 80, Eff. Aug. 27, 1925 ;-- CL 1929, 6125 ;-- CL 1948, 317.223

**317.224 Pine Lake wild life sanctuary; posted notices.**

**Sec. 4.**

The refuge herein established shall be posted in the manner following: A notice shall be posted on each corner of said refuge, stating which corner it is. Notices shall also be posted at reasonable distances along the boundary line of said refuge. The notices shall also state that all persons are prohibited from hunting thereon.

**History:** 1925, Act 80, Eff. Aug. 27, 1925 ;-- CL 1929, 6126 ;-- CL 1948, 317.224

**317.225 Violation of act; penalty.**

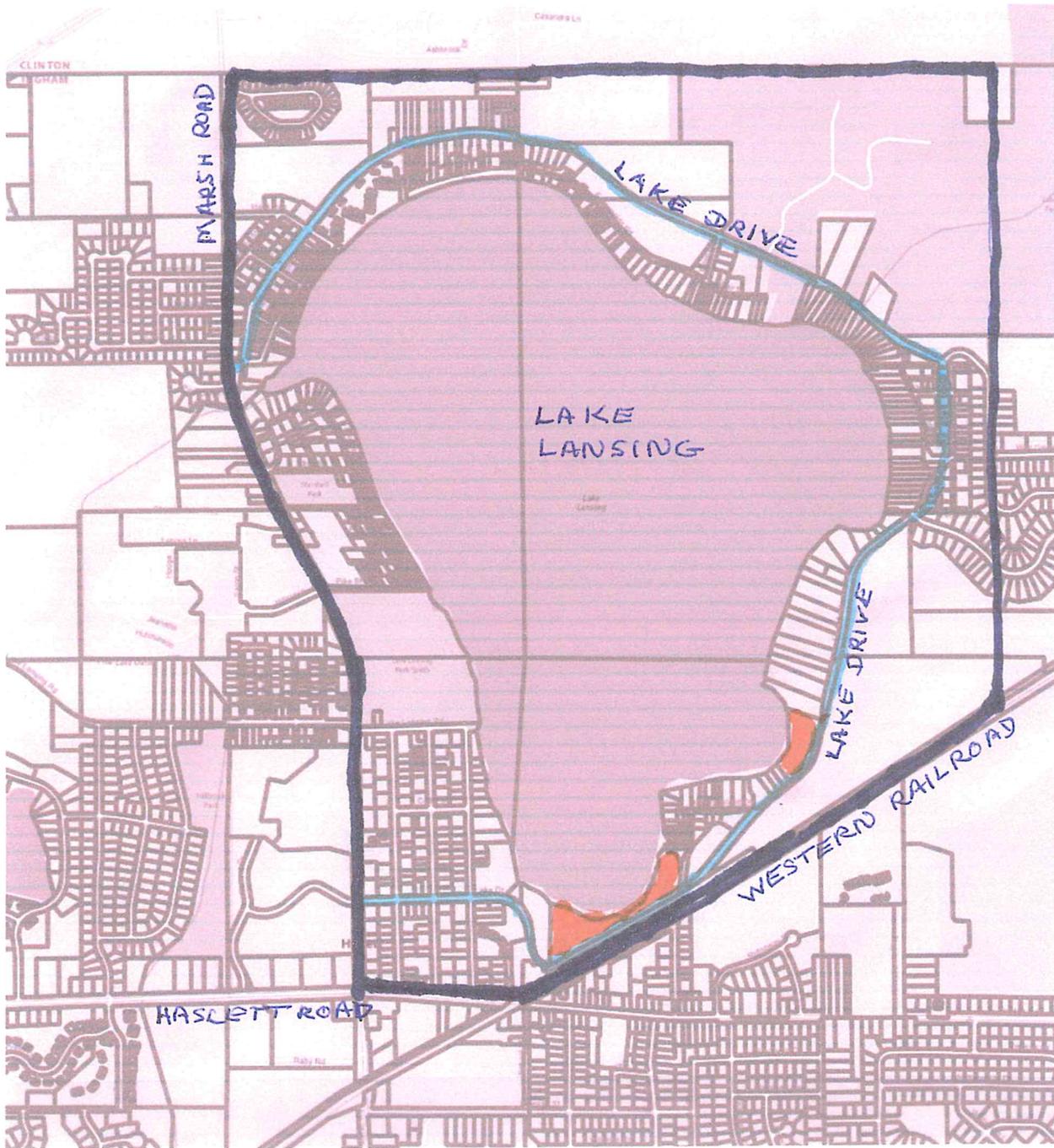
**Sec. 5.**

Any person violating any of the provisions of this act shall be deemed guilty of a misdemeanor and shall upon conviction thereof be subject to a fine of not less than 25 dollars nor more than 100 dollars or imprisonment in the county jail for a period of not more than 90 days or by both such fine and imprisonment in the discretion of the court.

**History:** 1925, Act 80, Eff. Aug. 27, 1925 ;-- CL 1929, 6127 ;-- CL 1948, 317.225

# Lake Lansing Area

## Pine Lake Wild Life Sanctuary Defined Territory per MCL 317.221



EAGLE SCOUT PROJECT PRESENTATION

ETHAN OLDS

BSA TROOP 97



MERIDIAN TOWNSHIP WETLAND BUFFER

INSTALLATION – SUMMER 2022



## Meridian Township Parks and Recreation Boy Scout Eagle Candidate Information

Scout Name: Ethan Olds Troop Number: 97

Parents' Names: Shawn / Jeff Olds

Scout's Phone Numbers: Home: EJ) 517 7631731 Cell: Shawn) 517 8965199

Scout's Email Address: ethanjolds@gmail.com

Scout's Postal Address: 2824 Staten Ave

Troop Master Name: Tom Porter Phone: 517 204 2136

Eagle Project Title: WETLAND Buffer Restoration

Date to Begin: April 2022 Projected Finish Date: June 2022

Eagle Project Description: Central Park south pond stays flooded most of the year so my project will be to restore the area by installing native plants as a "wetland buffer" to filter the water runoff, provide habitat for certain species, and reduce impacts of human disturbance

Date submitted: 4/5/22

Submit to: Meridian Township Parks and Recreation  
2100 Gaylord C Smith Court, Haslett MI 48840  
Phone: 517.853.4608  
Fax: 517.853.4099  
faust@meridian.mi.us / www.meridian.mi.us

**Why this is important:** This project will help protect and enhance the greenspace at Central Park South. This buffer zone will provide habitat/shelter, reduce erosion of this area and absorb the stormwater that continues to make this area so mucky. And of course – it will add natural beauty to this recreational park. I am honored to take on this project as my Eagle Scout Project.

**Proposed Plans:** clear area of debris, plant the grasses and plants, install a post (similar to the one in the photo) to mark the area a Wetland Buffer, possibly adding a small rock border to mark out the buffer area.

When the project is near the finish, I was wanting to paint the picnic table near the buffer area (sand down, paint the top red and the benches blue, add clear coat to seal).

**COST/FUNDRAISING: Approximate funds needed: \$635**

Plants/Grasses - \$500

Post and signage \$75

Stones \$ Free from neighbors yard

Paint / supplies \$60

I will be doing a can drive, personal donations

from family/friends, the stones will be donated at no cost. Whatever funds I don't use will be shared with the next scouts Eagle project and set aside for upkeep of the area.

The best plant species for Meridian Township wetland buffers

Grass Flower Shrub/Tree \*Available through HNC Native Plant Sale

**Zone 1 Aquatic:** Closest to wetland edge or in the wetland

OBL

- \*Wild Blue Iris; *Iris virginica* - full sun - partial shade, 1 ft. spacing
- Bulrush; *Bolboschoenus fluviatilis* - full sun, 1-3 ft. spacing
- \*Cardinal Flower; *Lobelia cardinalis* - full sun - full shade, 8-12 in. spacing
- Common Arrowhead; *Sagittaria latifolia* - full sun - partial shade, 3 ft. spacing
- Hardstem Bulrush; *Schoenoplectus acutus* - full sun, 1-3 ft. spacing
- \*Joe-pye Weed; *Eupatorium maculatum* - full sun - partial shade, 3 ft. spacing
- Porcupine Sedge; *Carex hystericina* - full sun - partial shade, 2 ft. spacing
- \*Showy Coneflower; *Rudbeckia fulgida* - full sun, 1.5-2 ft. spacing
- \*Swamp Milkweed; *Asclepias incarnata* - full sun - partial shade, 1.5-3 ft. spacing
- Threesquare; *Schoenoplectus pungens* - full sun - partial shade, 4-6 ft. spacing
- \*White Turtlehead; *Chelone glabra* - full sun - full shade, 1 ft. spacing

**Zone 2 Transition:** Intermediary space between wetland edge and landscape

FACW

- \*Blue Vervain; *Verbena hastata* - full sun - full shade, 18-24 in. spacing
- \*Boneset; *Eupatorium perfoliatum* - full sun - full shade, 2-3 ft. spacing
- \*Great Blue Lobelia; *Lobelia siphilitica* - full sun - full shade, 1 ft. spacing
- \*Ironweed; *Vernonia missurica* - full sun - partial shade, 3-4 ft. spacing
- \*New England Aster; *Symphotrichum novae-angliae* - partial shade, 2-3 ft. spacing
- \*Prairie Cord Grass; *Spartina pectinata* - full sun, 2 ft. spacing
- \*Wild Senna; *Senna hebecarpa* - full sun - partial shade, 2-3 ft. spacing

FAC

- \*Big Bluestem; *Andropogon gerardii* - full sun - partial shade, 2-3ft. spacing
- \*Culver's Root; *Veronicastrum virginicum* - full sun - partial shade, 1.5 ft. spacing
- \*Cup Plant; *Silphium perfoliatum* - full sun, no spacing requirements
- \*Foxglove Bear Tongue; *Penstemon digitalis*-full sun - partial shade, 1.5-4 ft. spacing
- \*Golden Alexanders; *Zizia aurea* - full sun - partial shade, 1.5-2 ft. spacing
- \*Jacob's Ladder; *Polemonium reptans* - full sun - partial shade, 1.5 ft. spacing
- \*Marsh Blazing Star; *Liatris spicata* - full sun, 1-1.5 ft. spacing
- \*Prairie Dock; *Silphium terebinthinaceum* - full sun, 2 ft. spacing
- \*Rattlesnake Master; *Eryngium yuccifolium* - full sun, 1 ft. spacing
- \*Rosin Weed; *Silphium integrifolium* - full sun, 2 ft. spacing
- Satin Brome; *Bromus nottowanus* - partial shade, 1.5-2 ft. spacing
- \*Switch Grass; *Panicum virgatum* - full sun - partial shade, 1 ft. spacing
- \*Tall Coreopsis; *Coreopsis tripteris* - full sun - partial shade, 2 ft. spacing

### Zone 3 Upland: Furthest from wetland, closest to landscape

#### FAC

- \*Big Bluestem; *Andropogon gerardii* - full sun - partial shade, 2-3ft. spacing
- \*Culver's Root; *Veronicastrum virginicum* - full sun - partial shade, 1.5 ft. spacing
- \*Cup Plant; *Silphium perfoliatum* - full sun, no spacing requirements
- \*Foxglove Bear Tongue; *Penstemon digitalis*-full sun - partial shade, 1.5-4 ft. spacing
- \*Golden Alexanders; *Zizia aurea* - full sun - partial shade, 1.5-2 ft. spacing
- \*Jacob's Ladder; *Polemonium reptans* - full sun - partial shade, 1.5 ft. spacing
- \*Marsh Blazing Star; *Liatris spicata* - full sun, 1-1.5 ft. spacing
- \*Prairie Dock; *Silphium terebinthinaceum* - full sun, 2 ft. spacing
- \*Rattlesnake Master; *Eryngium yuccifolium* - full sun, 1 ft. spacing
- \*Rosin Weed; *Silphium integrifolium* - full sun, 2 ft. spacing
- Satin Brome; *Bromus nottowayanus* - partial shade, 1.5-2 ft. spacing
- \*Switch Grass; *Panicum virgatum* - full sun - partial shade, 1 ft. spacing
- \*Tall Coreopsis; *Coreopsis tripteris* - full sun - partial shade, 2 ft. spacing

#### FACU

- American Holly; *Ilex opaca* - full sun - full shade, 10-20 ft. spacing
- \*Bergamot; *Monarda fistulosa* - full sun - partial shade, 12-18 in. spacing
- \*Black-eyed Susan; *Rudbeckia subtomentosa* - full sun - partial shade, 2-3 ft. spacing
- \*Bottlebrush Grass; *Hystrix patula* - full sun - full shade, no spacing requirements
- \*Canada Wild Rye; *Elymus canadensis* - full sun - partial shade, 3 ft. spacing
- \*Indian Grass; *Sorghastrum nutans* - full sun - full shade, 3 ft. spacing
- Leaf-cup; *Polymnia canadensis* - partial shade- shade, 1.5-2 ft. spacing
- \*Little Bluestem; *Schizachyrium scoparium* - full sun - partial shade, 1.5-2 ft. spacing
- \*Nodding Wild Onion; *Allium cernuum* - full sun, 6 in. - 1 ft. spacing
- \*Prairie Dropseed; *Sporobolus heterolepis* - full sun, 2 ft. spacing
- \*Prairie Smoke; *Geum triflorum* - full sun - full shade, 6 in- 1 ft. spacing
- \*Roundleaf Ragwort; *Packera obovata* - partial shade - full shade, 1-1.5 ft. spacing
- \*Sand Tickseed; *Coreopsis lanceolata* - full sun - full shade, 1.5 ft. spacing
- \*Spiderwort; *Tradescantia ohiensis* - partial shade, 1 ft. spacing
- \*Stiff Goldenrod; *Solidago rigida* - full sun, 1 ft. spacing
- \*Sweet Grass; *Anthoxanthum odoratum* - full sun - partial shade, 1 ft. spacing
- Tulip Tree; *Liriodendron tulipifera* - full sun - full shade, 40 ft. spacing
- \*Western Sunflower; *Helianthus occidentalis* - full sun - partial shade, 1 ft. spacing
- \*Wild Columbine; *Aquilegia canadensis* - partial shade - full shade, 1.5 ft. spacing
- \*Wild Petunia; *Ruellia humilis* - full sun - partial shade; 1 ft. spacing

# 2022 Harris Nature Center Native Plant Sale Pre-Order Form

Wildflowers	# of Plants	\$6/ qt pot	\$35/ ½ flat \$70/ flat	Wildflowers (cont.)	# of Plants	\$6/ qt pot	\$35/ ½ flat \$70/ flat
Bergamot				Sky Blue Aster			
Black-eyed Susan				Spiderwort			
Blue Vervain <input checked="" type="checkbox"/>				Stiff Goldenrod			
Boneset				Swamp (Red) Milkweed <input checked="" type="checkbox"/>			
Butterfly Weed				Sweet Black-eyed Susan			
Cardinal Flower <input checked="" type="checkbox"/>				Tall Coreopsis <input checked="" type="checkbox"/>			
Compass Plant				Thimbleweed			
Culver's Root				Western Sunflower			
Cup Plant				White Turtlehead <input checked="" type="checkbox"/>			
False Boneset				Wild Blue Iris			
Foxglove Beard Tongue				Wild Columbine			
Gray Headed Coneflower				Wild Lupine			
Golden Alexanders				Wild Petunia			
Great Blue Lobelia				Wild Senna			
Hairy Beard Tongue				Woodland Sunflower			
Hoary Vervain							
Horsemint				<b>Grasses</b>	<b>#</b>	<b>\$6/qt</b>	<b>As Above</b>
Ironweed				Big Bluestem <input checked="" type="checkbox"/>			
Jacob's Ladder <input checked="" type="checkbox"/>				Bottlebrush Grass <input checked="" type="checkbox"/>			
Joe-pye Weed <input checked="" type="checkbox"/>				Canada Wild Rye			
Lead Plant				Indian Grass			
Marsh Blazing Star				June Grass			
New England Aster				Little Bluestem			
New Jersey Tea				Prairie Cord Grass			
Nodding Wild Onion				Prairie Dropseed <input checked="" type="checkbox"/>			
Northern Blazing Star				Purple Top			
Prairie Coreopsis				Sideoats Grama			
Prairie Dock				Sweet Grass <input checked="" type="checkbox"/>			
Prairie Smoke <input checked="" type="checkbox"/>				Switch Grass <input checked="" type="checkbox"/>			
Pale Purple Coneflower				<b>Woodlands</b>	<b>#</b>	<b>\$8/qt</b>	<b>No flats</b>
Purple Coneflower				Wild Ginger			
Rattlesnake Master				<b>Garden Mixes</b>	<b>#</b>	<b>No qts</b>	<b>\$85/ flat</b>
Rosin Weed				Butterfly garden mix			
Rough Blazing Star				Lakeshore garden mix			
Roundleaf Ragwort				Native grasses mix			
Sand Tickseed				Pollinator garden mix			
Showy Coneflower				Rain garden mix			
Showy Goldenrod				Wildflower garden mix			
<b>Total Columns</b>				<b>Total Columns</b>			

TOTAL PRICE (add all columns together) \_\_\_\_\_

Please include full payment with form

Name \_\_\_\_\_

Phone Numbers (H) \_\_\_\_\_ (C) \_\_\_\_\_ Email Address \_\_\_\_\_

Return to HNC with check (payable to Meridian Township) by April 29, 2022 \*\*\* 3998 Van Atta Road, Okemos, 48864  
Pick up May 7, 2022 at 9 am - 1 pm \*\*\* Questions: 517.349.3866 or [hnc@meridian.mi.us](mailto:hnc@meridian.mi.us)

**Wetland Buffer Restoration Program**  
**Meridian Township Wetland Education Campaign**  
**“Build Back the Buffer”**

Information cited from:

- Washington State Department of Ecology
  - [https://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/Wetland\\_Buffers\\_Use\\_and\\_Effectiveness.pdf](https://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/Wetland_Buffers_Use_and_Effectiveness.pdf)
- Environmental Protection Agency
  - <https://www.epa.gov/wetlands/wetlands-factsheet-series>

What is a wetland buffer: Areas that surround a wetland and reduce adverse impacts to wetland functions and values from adjacent development.

Why are buffers essential for wetlands protection?

- Buffers reduce wetland impacts by moderating the effects of stormwater runoff including:
  - stabilizing soil to prevent erosion
  - Filtering suspended solids, nutrients, and harmful or toxic substances
  - Moderating water level fluctuations and reducing flash flood events
- Buffers provide essential habitat for wetland-associated species for use in:
  - feeding
  - Roosting
  - breeding and rearing of young
  - cover for safety
  - mobility
  - thermal protection
- Buffers also reduce impacts of human disturbance on wetland habitats including:
  - Blocking noise and glare
  - Reducing sedimentation and nutrient input into the local watershed
  - Reducing direct human disturbance from:
    - dumped debris from yard waste
    - removing vegetation
    - Mowing
    - Pesticide and fertilizer applications
    - Provides visual separation

Potential partners for the program:

- Ingham Conservation District

- Mid-Michigan CISMA (for potential invasive species management as part of the buffer restoration)
- Wildtype Native Plant Nursery
- Designs By Nature Native Plant Nursery
- Wild Ones Red Cedar Chapter (demonstration and expertise from local residents who are already maintaining buffers and native vegetation in their yards)
- Land Preservation Program - potential funding for properties that border preserve wetlands (example: the property on Okemos Road next to Central Meridian Uplands)

Examples of what buffer restoration can look like:

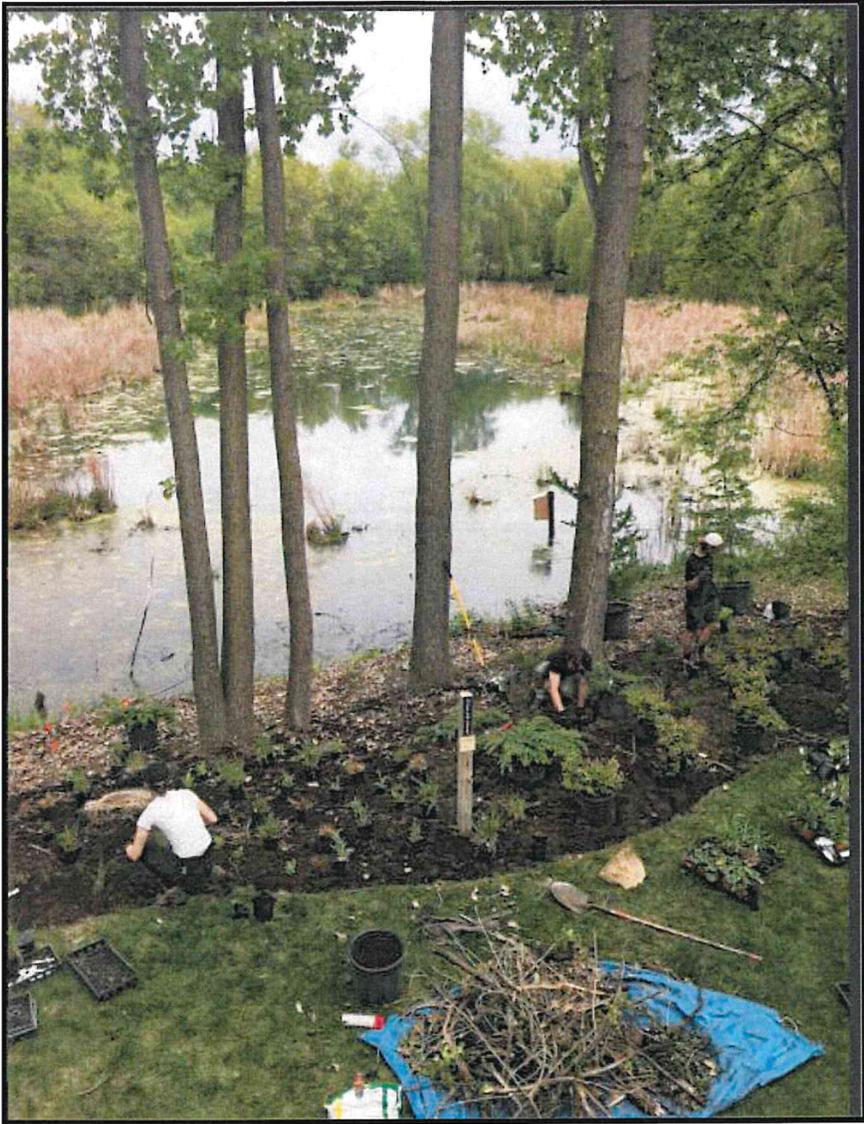
Photos from Light and Dark Landscape

Location: Plymouth, MN

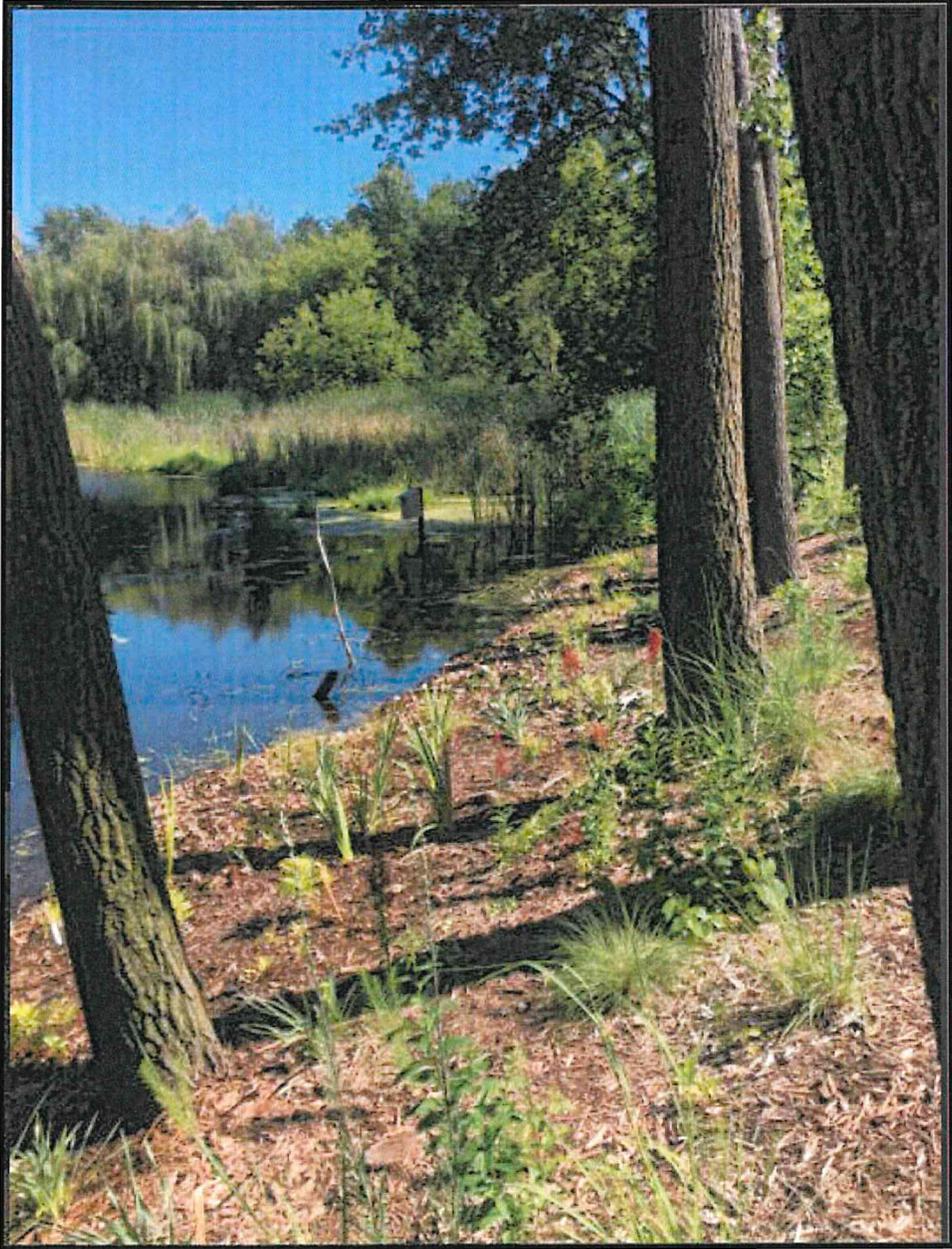
Partners: Tree Hugger Tree Care, Light and Dark Landscape, and the Minnehaha Creek Watershed District

<https://lightdarklandscape.com/portfolio/wetland-buffer-restoration/>

(below) Light and Dark Landscaping company lays out plugs and plants them for the buffer. Depending on how large the buffer is, various species as well as sizes of transplants can be used.



(below) A view of the buffer restoration a few weeks after planting. Larger transplants will fill in faster and decrease the amount of maintenance required in the first few years of planting.



**Build Back the Buffer**  
**Township Restoration Sites**

**1. Central Park South Pond**

- a. After the recent addition of a fishing dock on Central Park Pond, there is a drainage area that remains flooded most of the year (which will be addressed at a later date).
- b. There is little to no vegetation on the northwest side of the pond and a drainage area that remains muddy with a film on the water from roadway runoff
- c. In alliance with the Township ordinance pertaining to wetland buffers, this site is in need of restoration via the installation of native plants (a list of species will be provided by the Township)

(Below) Drainage area at Central Park South Pond

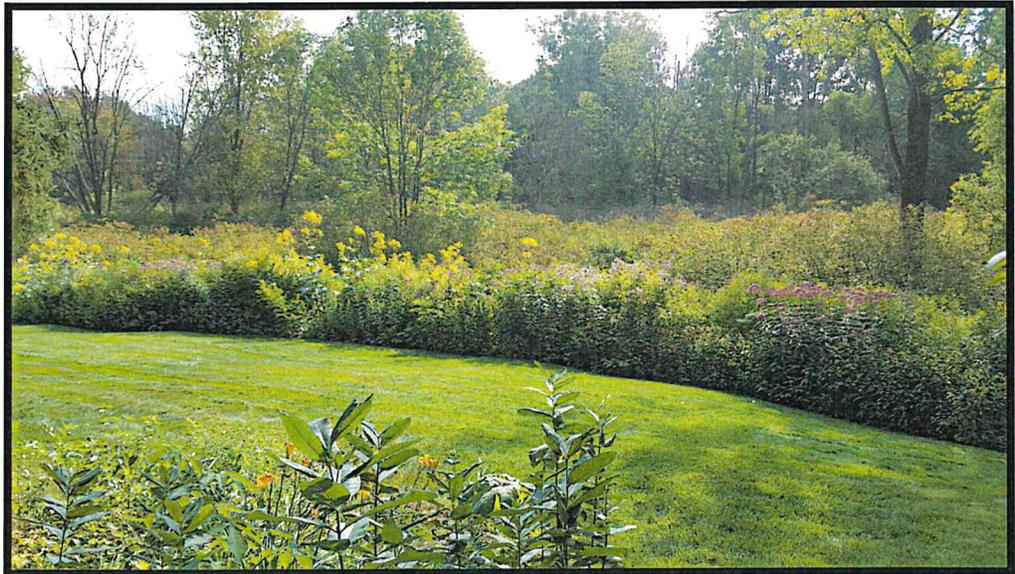


d.



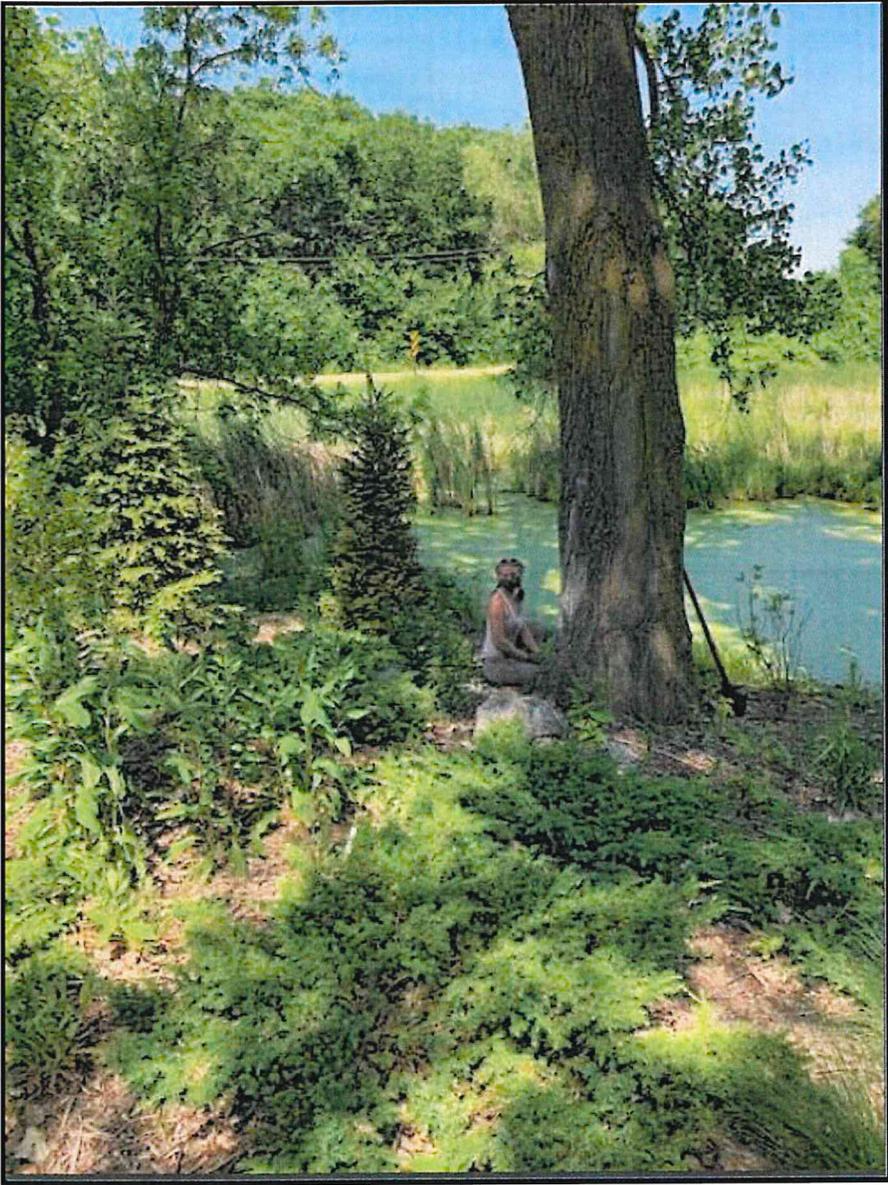
e.

(Below) Residential demonstration of a native wetland buffer

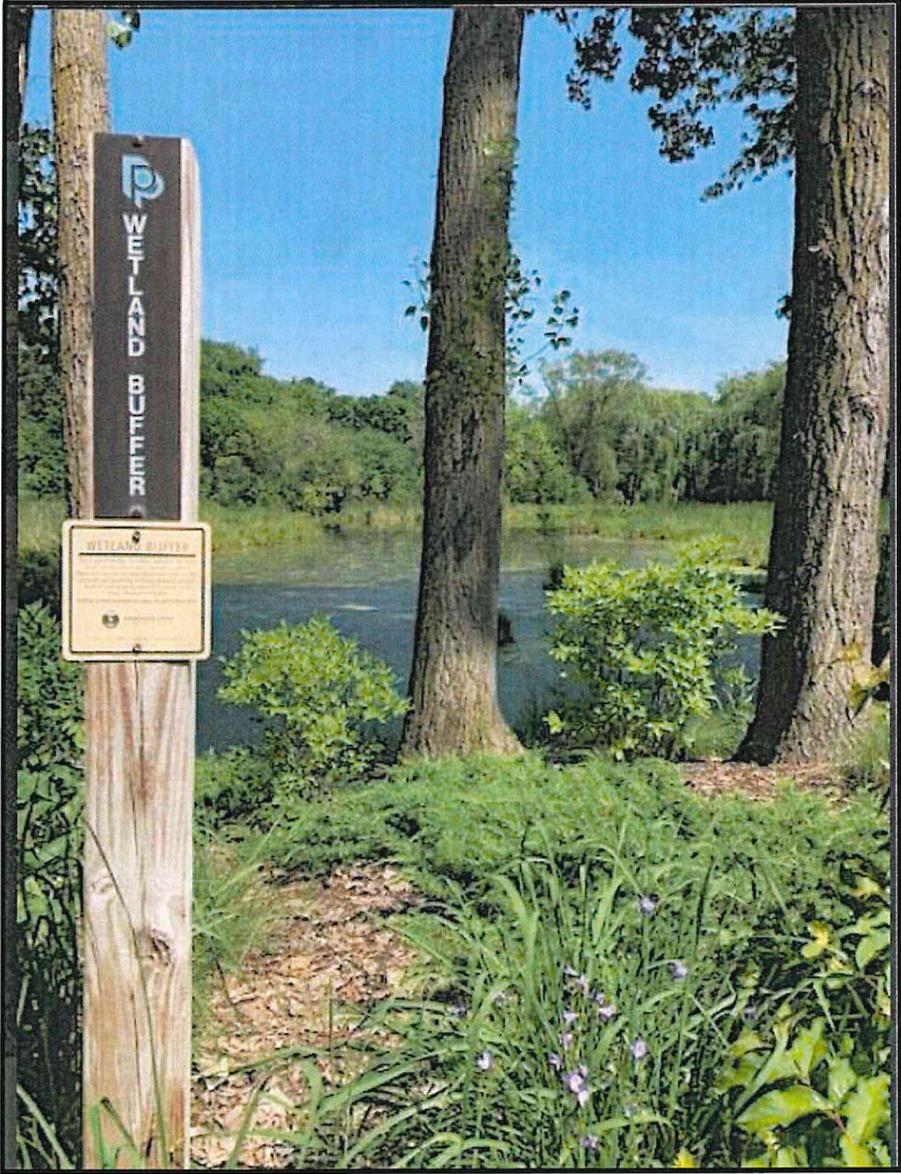


f.

(below) A buffer restoration after it has been more established and filled in



(below) a sign denoting where the buffer starts - may be a great option for Township wetland buffers, as well as a sign for neighbors participating in the Township program

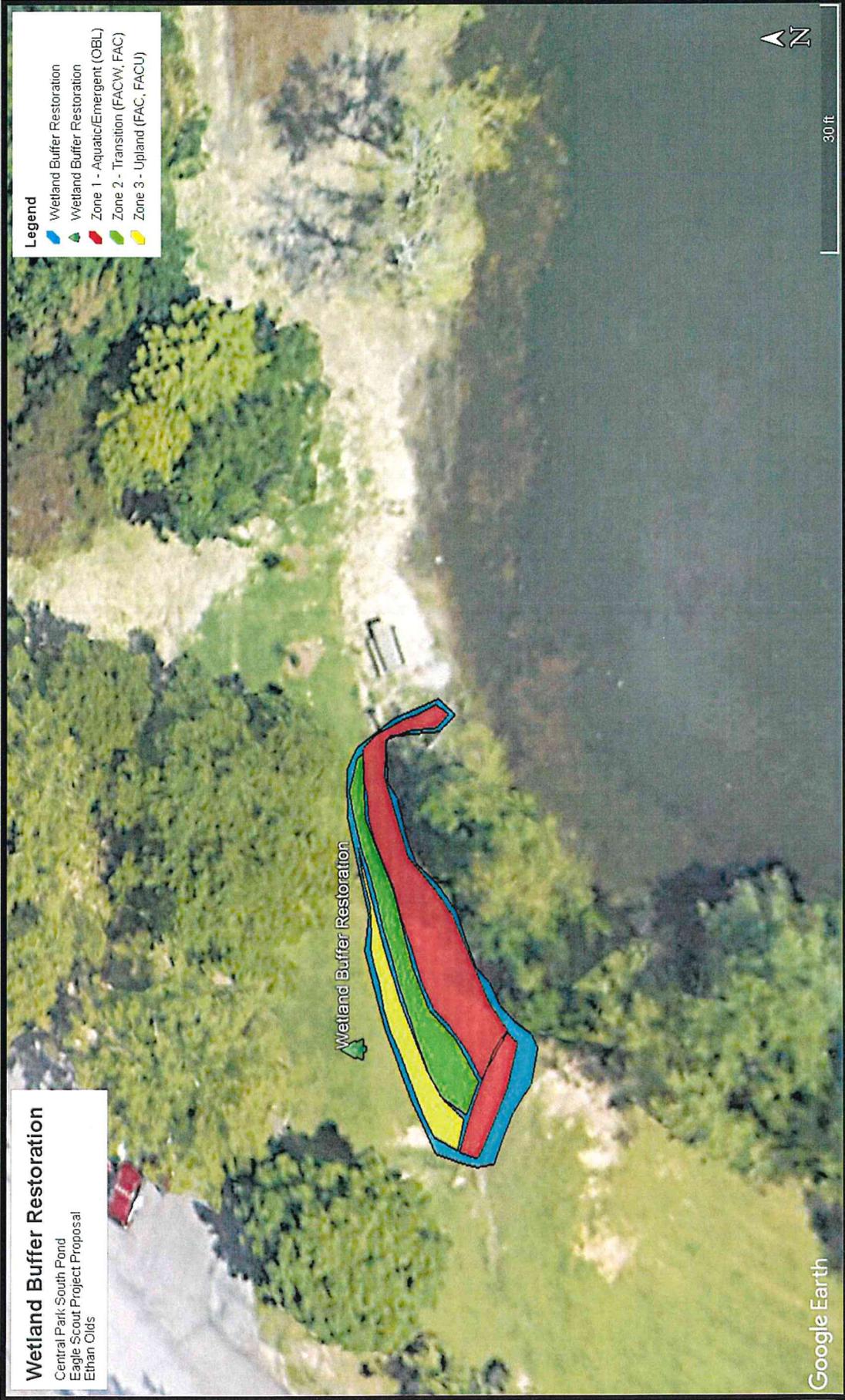


### Wetland Buffer Restoration

Central Park South Pond  
Eagle Scout Project Proposal  
Ethan Olds

### Legend

- Wetland Buffer Restoration
- Wetland Buffer Restoration
- Zone 1 - Aquatic/Emergent (OBL)
- Zone 2 - Transition (FACW, FAC)
- Zone 3 - Upland (FAC, FACU)



## **DIRECTOR'S REPORT MAY, 2022:**

1. **Floating Islands** for Central Park South – ordered. 5 islands (islands are 7.5 x 10') each island will have 54 holes (270 total for all 5 islands). Islands will arrive end of May. Volunteers will help plant.

2. **Consumers Energy** Ferguson Park **bench donation** – ordered (this was payment for use of an easement at Wonch Park during construction) – recycled material made from milk jugs.

3. **Michigan Municipal League Community Excellence Award** for Marketplace on the Green – submitting project for consideration - due May 13.

4. **Trail Map** – Kati is getting a price for embellishment to the map from the trail map co that she works with. Jane will complete order once we consider the additional cost.

5. **5280 Okemos Rd/Nancy Moore Park Acquisition** – Demolition of the house took place the week of May 2, 2022. Site restoration is underway.

6. The Engineering Department is developing a plan for creating **recycling drop off area** off the Nancy Moore Park entry driveway adjacent to the Service Center.

7. **Hillbrook Park** – IDC owes us 40 trees after drain work in park. Some have been installed, more are coming this spring. The trees will be planted along Montebello Ave and along the edge of the woods (Dogwood, Spicebush, High Bush Cranberry, Winterberry, Sugar Maple, Red Maple, Serviceberry, Eastern Redbud, Flowering Dogwood, Red Oak, Swamp White Oak, Bur Oak, Sycamore, Tulip Tree, Basswood)

### **8. Stewardship**

- Vernal Pool Patrol launched with 12 new volunteer monitors. (two training days were held)
- Earth Day Clean-up was held on April 22 where 18 volunteers picked up 250lbs of trash along Central Park Drive
- Wetland Trash Clean-up took place at Central Meridian Uplands. Approximately 1,000lbs of trash removed with 20 volunteers.
- Conducted first annual staff invasive species field training 8 stewardship workdays and/or educational opportunities conducted including wetland walks, stewardship Saturdays, Trailblazers workday, weekend warriors with 74 participants
- 

### **9. RECREATION:**

- Haslett Prom at Marketplace - success
- Flashlight Easter Egg hunt at Nancy Moore Park - 400 participants 50 volunteers
- Mom to Mom sale-46 vendors May 1<sup>st</sup> – success!
- 756 soccer players
- 500 Baseball/Softball/T-ball players
- 13 classes of Sporties for Shorties are full starting in June
- Adult sports registration is open
- Haslett and Okemos Baseball clubs are using Towner and Hartrick fields
- Haslett and Okemos Soccer clubs are using Towner-Hartrick-North Meridian-Nancy Moore fields

- Playmakers running club has 28 participants – Nancy Moore Park
- Planning underway for the **2022 Heritage Festival** on Saturday, October 1.

**10. Farmers Market** - First day of Spring season was Saturday, May 7. 47 vendors with 2,400 visitors!

**11. Celebrate Meridian** – Saturday, June 25, 2022 at Central Park and Marketplace

**12. Park Maintenance:**

- -Upgraded the pole barn at the Okemos Road property with a new roof and fixed the doors
- Installed the windscreen at Marketplace
- Successful Love-a-Park Day with 20 volunteers in 4 parks
- Completed laying the pavers around the Gazebo at Historical Village
- All soccer fields prepped
- Baseball/softball fields groomed and ready
- All Park restrooms are open (except for Wonch and Ferguson) closed for the year.

**13. Harris Nature Center:**

- Annie's Big Nature Lesson in March for the entire month of April (5 schools, 8 classes, 189 students)
- MSU Science Festival Virtual Wildlife Programs: 11 classes, 264 students
- All staff is hired for Summer Camp
- Getting ready to pave the trail to the new observation deck this spring
- Planning for 25th Anniversary Event on July 23rd
- Annual Native Plants Sale, Saturday, May 7<sup>th</sup> \$8,000 gross sales
- Wildflower Wednesdays, all month long in May at 1 pm
- HNCF is interested in updated its By-Laws and Partnership Agreement. I will share their suggestions as soon as they are confirmed. The Park Commission will need to vote in favor of the amendments in order to approve.