AGENDA



CHARTER TOWNSHIP OF MERIDIAN LAND PRESERVATION ADVISORY BOARD REGULAR MEETING

November 10, 2021 Zoom Meeting

To view the virtual meeting directly through Zoom, please visit:

https://zoom.us/join

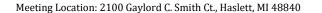
Meeting ID: 861 5669 1607 Meeting Password: Preserve

To participate in public comment during the virtual meeting, please call 517.349.1232

If you are unable to access the meeting due to technical difficulties, please contact Director of IT, Stephen Gebes at 517.853.4222 or gebes@meridian.mi.us. Every effort will be made to help you participate in the meeting.

- 1. CALL MEETING TO ORDER
- 2. PUBLIC COMMENT
- 3. APPROVE AGENDA
 - A. November 10th, 2021
- 4. APPROVE MINUTES
 - A. September 8th, 2021
- 5. COMMUNICATIONS
 - A. No board meeting in December
- 6. DISCUSSION ITEMS
 - A. Steven Schultz Flooding and drainage issue request at Davis-Foster Preserve
 - 1. Memo for background
 - 2. Site map with swale & cross-section
- 7. OLD BUSINESS
 - A. Lake Lansing North Prescribed Burn Update
 - B. Wetland Education Campaign
 - 1. Mailed letter and brochure to 1460 residents
 - 2. Tihart-Cornell annual fall wetland cleanup
 - a. November 20th
 - 3. Presentation to Conservation Stewards Program
 - C. Planting a Native Meridian Program Expansion
 - 1. Fall seed collection and planting
 - 2. Work with local nurseries
- 8. REPORTS
 - A. STAFF REPORT: Stewardship Coordinator, Emma Campbell
 - 1. MCC Workdays
 - 2. Fall/Winter stewardship plans

Individuals with disabilities requiring auxiliary aids or services should contact the Meridian Township Land Preservation Advisory Board by contacting: Director LuAnn Maisner, 5151 Marsh Road, Okemos, MI 48864 or 517.853.4600 - Ten Day Notice is Required.



Providing a safe and welcoming, sustainable prime community.



AGENDA



CHARTER TOWNSHIP OF MERIDIAN LAND PRESERVATION ADVISORY BOARD **REGULAR MEETING**

November 10, 2021 **Zoom Meeting**

- B. ENVIRONMENTAL COMMISSION REPORT: Board Member, Kendra Grassesschi
- C. PARK COMMISSION REPORT: Board Member, Mark Stephens
- 9. PUBLIC COMMENT
- 10. OTHER MATTERS AND BOARD MEMBERS' COMMENTS
- 11. ANNOUNCEMENTS
 - A. Next Land Preservation Advisory Board Meeting: Wednesday, January 12, 2022 at 6 pm, over Zoom.
- 12. ADJOURNMENT



CHARTER TOWNSHIP OF MERIDIAN LAND PRESERVATION ADVISORY BOARD REGULAR MEETING MINUTES Zoom Meeting Wednesday, September 8th, 2021, 6 PM

PRESENT: Board Members: Jamie Hiller, Steve Thomas, Kris Parnell, Yu Man Lee, Kendra

Grassesschi, Chanelle Russ.

ABSENT: Board Members: Mark Stephens. Trustee Opsommer absent after 6:40 pm.

STAFF: Emma Campbell, Stewardship Coordinator

TOWNSHIP: Township Trustee, Dan Opsommer

1. CALL MEETING TO ORDER

CHAIR HILLER MOVED TO CALL THE MEETING TO ORDER AT 6:04 PM.

2. PUBLIC COMMENT

A. NONE.

3. APPROVE AGENDA

TRUSTEE OPSOMMER MOVED TO APPROVE THE SEPTEMBER 8TH, 2021 AGENDA. Board member Parnell seconded.

VOICE VOTE: Motion carried unanimously.

4. APPROVAL OF MINUTES

TRUSTEE OPSOMMER MOVED TO APPROVE THE AUGUST 25TH, 2021 MINUTES. Seconded by Trustee Opsommer.

VOICE VOTE: Motion carried unanimously.

5. COMMUNICATIONS

A. None.

6. OLD BUSINESS

- A. Davis-Foster Preserve maintenance and improvements
 - 1. Bids for wildlife viewing overlook at two different locations
 - a. Coordinator Campbell briefs the board on the bid process and what factors need to be considered for this project:
 - 1. Impact of heavy equipment on preserve land. If the overlook is placed in the middle of the preserve equipment will impact more area. If it is placed in the front at the parking lot, impact from equipment will be minimal.
 - 2. ADA accessibility is a priority: Department staff feel it may be too

- difficult to manage the pathway out to the overlook for ADA accessibility. If the overlook is placed in the parking lot, accessibility will be much easier.
- 3. A two-story component to the overlook may be considered if it is placed in the parking to give users a better view of the preserve.
- b. The board discusses the options: The location of the overlook on the hill will not be considered due to ADA accessibility and impact of equipment on the preserve. Coordinator Campbell will pursue bids for the spring 2022 season at the location in the front parking lot.
- 2. Burn unit pathway revisions
 - a. Mitigate mowing in sensitive areas
 - 1. Coordinator Campbell briefs the board on closure of a burn break at Davis-Foster that has presented safety hazards for the grounds crew. Sinkholes and soft ground at the bottom of the hill have made it unsafe for mowing. There is also unnecessary impact on the soils and plants in that area due to the mowers sinking in to the mud, creating ruts and eroding the soil. This is a very sensitive area with a diverse array of grasses and forbes. The burn breaks will no longer be mowed in this area.
 - 2. Board members question whether or not there are old drains in the Davis-Foster Preserve that may be removed to restore historic hydrology of the area. Coordinator Campbell will report back on this subject.
- B. Renaming of Preserves: Finalized list for new names
 - 1. Board Members vote on finalized list for preserve names. The results are as follows (names with the most votes are highlighted in yellow):
 - Lake Lansing South Preserve
 - Pike preserve
 - Voice votes during roll call: None.
 - Pike crossing preserve
 - Voice vote unanimous.
 - Central Meridian Uplands
 - Okemos Road Preserve
 - Voice vote unanimous.
 - Eberly Preserve
 - Voice votes during roll call: None.
 - Pine Lake Preserve
 - Voice votes during roll call: None.
 - Meridian Central Wetland Preserve
 - Haslett Marsh Preserve
 - Voice votes during roll call: None.
 - Inter-Urban Wetland Preserve
 - Voice vote unanimous.
 - North Ridge Preserve
 - Glacial Ridge Preserve
 - Voice vote unanimous.
 - North Ridge Preserve
 - Voice votes during roll call: None.

Minutes - Land Preservation Advisory Board September 8, 2021

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- Whitehills Preserve
 - Voice votes during roll call: None.
- SW Uplands Preserve
 - Heron Creek Preserve
 - Voice vote unanimous.
- Tihart-Cornell Wetland
 - Cornell Wetlands
 - Voice vote unanimous.
 - Mud Lake Wetlands
 - Voice votes during roll call: None.
 - Cornell Oaks Preserve
 - Voice votes during roll call: None.
- Tihart Preserve
 - This was the only option and voice vote was unanimous to keep it Tihart Preserve.

BOARD MEMBER GRASSESSCHI MADE A MOTION TO RENAME THE SELECTED PRESERVE PROPERTIES AND INSTALL THE CORRECT SIGNAGE. Board member Parnell seconded.

VOICE VOTE: Motion carried unanimously.

7. REPORTS

- A. STAFF REPORT: Stewardship Coordinator, Emma Campbell
 - 1. Late summer stewardship: herbicide treatment of invasive species; Japanese knotweed, spotted knapweed, field thistle, and phragmites. Cut-stump management season had started and invasive shrub removal will be the center of volunteer efforts for the rest of the year until spring.
- B. ENVIRONMENTAL COMMISSION REPORT: Board Member, Kendra Grassesschi
 - 1. Board Member Grassesschi briefs the board on the 12 month plan for the wetland education campaign. This campaign will focus on the collaboration of Township departments (Engineering, Land Preservation, Environmental Commission, Parks, and Code Enforcement) to educate the community on existing wetland ordinances to protect all wetlands ¼ of an acre and larger in size. It is also meant to educate the community on the environmental and residential benefits that wetlands provide.
- C. PARK COMMISSION REPORT: Board Member, Mark Stephens
 - 1. Board member Stephens was absent, so no Park Commission report.

8. COMMENTS FROM THE PUBLIC

A. NONE.

9. OTHER MATTERS AND BOARD MEMBERS' COMMENTS

A. Chair Hiller will be absent from the November 10, 2021 meeting.

10. ANNOUNCEMENTS

A. Next Land Preservation Advisory Board Meeting: Wednesday, November 10, 2021 over Zoom.

Minutes - Land Preservation Advisory Board September 8, 2021

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11. ADJOURNMENT

BOARD MEMBER PARNELL MOVED TO ADJOURN THE MEETING. Board member Grassesschi seconded.

VOICE VOTE: Motion carried unanimously.

The meeting is adjourned at 7:34 pm.

Stephen and Jane Schultz 730 Knightsford Lane Okemos, Michigan 48864

INFORMATION AND REQUEST REGARDING DRAINAGE

To: Land Preservation Advisory Board

From: Steve and Jane Schultz

Re: Flooding and Drainage Issue

Date: October 20, 2021

We are writing to you to request your help in solving a drainage problem on our property and in an adjacent retention area that resulted in the flooding of our basement this past June. This memorandum is to provide the Board with background information to be considered along with drawings and suggestions previously provided to Staff.

Background

We built our home in Candlestone Estates No. 2 subdivision in 1986. The subdivision consists of six single family homes on Knightsford Lane. Ours is the easternmost lot in the subdivision. The subdivision and our lot is bordered on the north by the Davis-Foster Preserve. Our lot is bordered on the east and south in part by Candlestone Estates No. 1, which consists of several homes on Chipping Camden Lane.

Immediately south of our home is a one acre out lot dedicated in both plats to receive surface water drainage from the north end of Chipping Camden Lane and the east end of Knightsford Lane. When we constructed our home in 1986, we were also required to install a culvert under our driveway to receive surface water runoff from the south end of the Davis farm, now the Preserve. The out lot has no outlet for excessive water flowing to it. It is a dead end with no relief from the flows it receives.

The subdivision plat indicates that the owner of the former Lyn and Karen Beekman home at 5000 Chipping Camden is responsible for out lot maintenance.

When we constructed our home, surface water and the groundwater table were not a problem. In fact, we did not even need a sump in the basement of our home. All footing drains and eave downspouts simply drained to the out lot. Typically, the out lot would have water of 1 or 2 feet in depth in the Spring and Fall. In the summer, it would be bone dry.

About 15 years ago, we asked Lyn Beekman for permission to dig a small pond in the out lot, which he granted. We sought and obtained a wetland review from the Township, which

determined that due to the small size of the wetland area in the out lot, no wetland permit was required. All-Terrain Excavating dug and contoured the pond and graded the area to retain the required drainage from the Davis farm, Chipping Camden and Knightsford Lane.

The pond and the surrounding area presented no issues until recently. The pond would be up to 2 feet lower in Summer than in the Spring. The swale constructed by All-Terrain to take water from the Davis farm under our driveway and to the pond worked well and was bone dry except for a day or two after a significant rain.

About 3 years ago, we noticed that the pond level was remaining a bit higher each year. Both the swale from the Davis farm and the drainage swale to take water from Chipping Camden to the pond would be wetter for longer periods. In 2019, we noticed on a couple of occasions that the water level of the pond was over the bank of the pond and into our lawn. In 2020, this occurred more frequently, but the water never got so close to the house as to pose a flooding threat to our walk out basement.

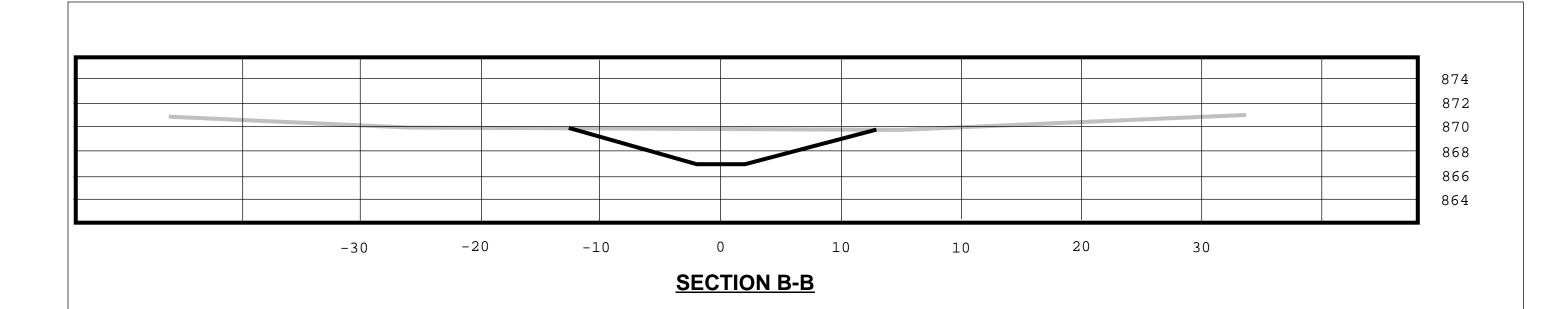
Starting this year, the pond water level was outside the pond bank in the Spring on several occasions. When the Township got the 6"-8" rainfall in late June, the water came up fast and with no time to subside. With no out let, the water flooded our finished basement 2" to 3" deep. In addition, the groundwater pushed up our basement floor such that it cracked in several locations.

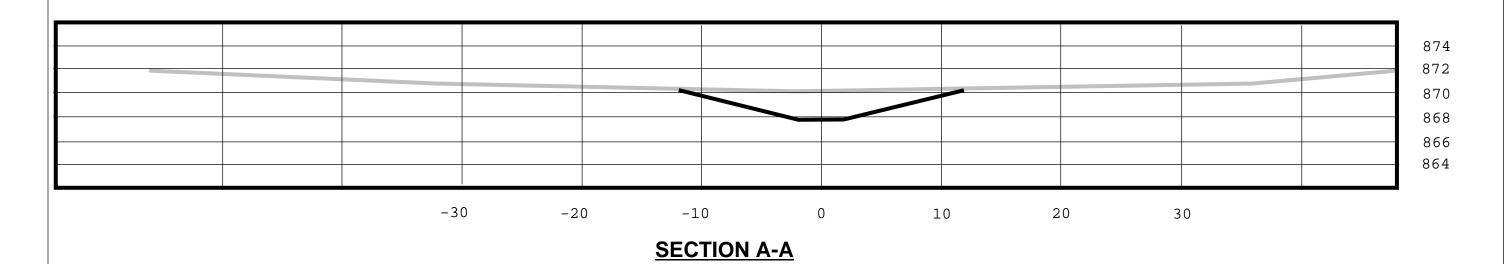
Investigation

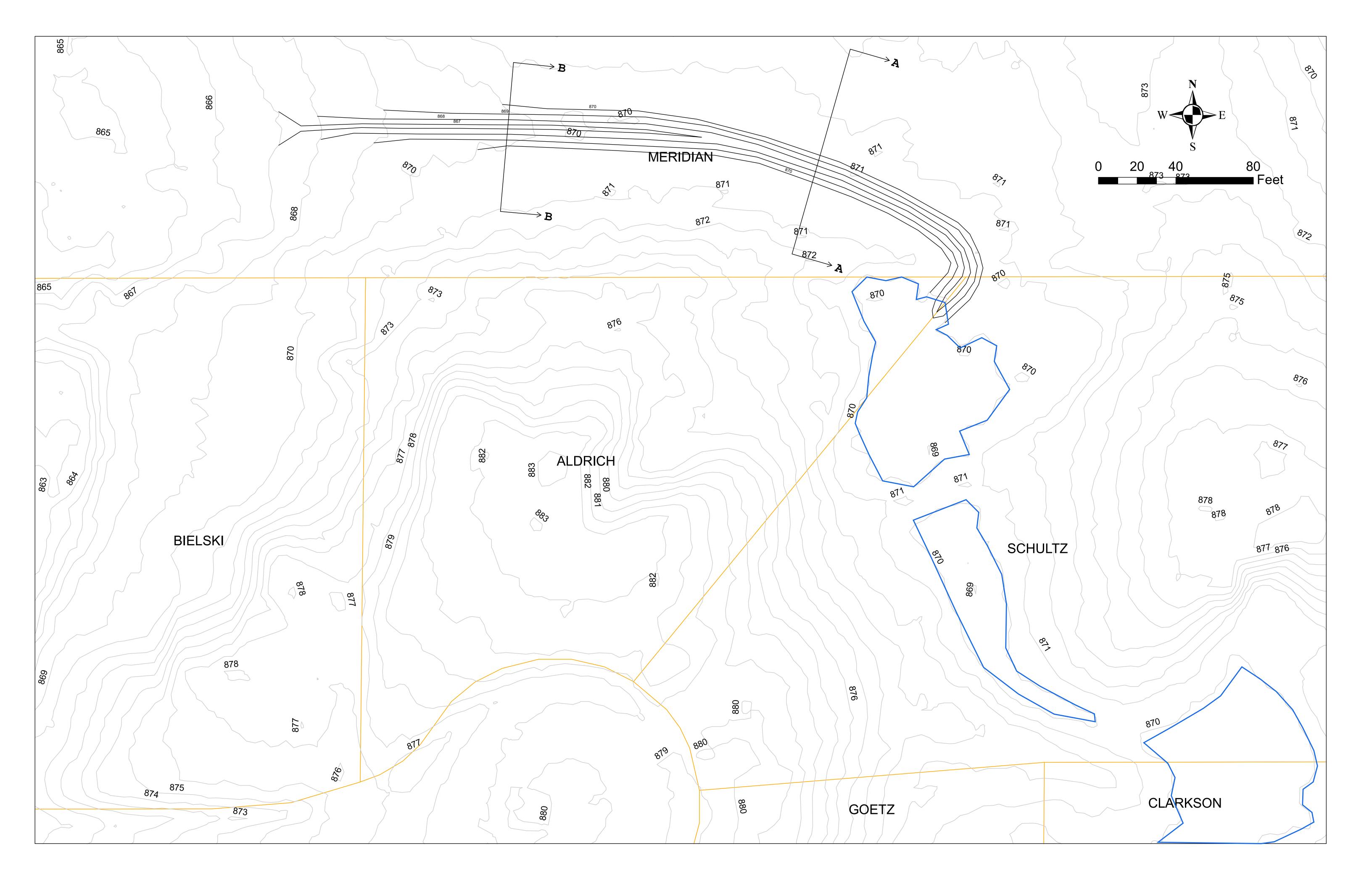
We asked James Ensign, a Certified Floodplain Manager and civil engineer with Bergmann Architects Engineers Planners, to work with us to examine the flooding and hopefully find a solution to the problem we face. We do not want to repair our basement floor and refinish the basement until we address this issue. Mr. Ensign took elevations of the pond, out lot, our surrounding property and driveway, and the Davis-Foster Preserve. He provided drawings to the Township, which we have included with this memorandum. Additional information was provided to the Staff. Mr. Ensign will be at the Board meeting on November 10 to discuss a possible solution to the flooding we suffered.

Mr. Ensign's suggested solution to our problem is to create an outlet to provide relief from flooding from a significant rain event. His suggestion is to create a swale that is a couple of feet lower than the current grade along the south boundary of the Davis-Foster Preserve so that in the case of a significant rain event, the out lot would have a relief outlet to the existing drain and wetland along VanAtta Road. Excessive runoff from the Davis-Foster Preserve would also be captured in case of a significant rain event. Except in the case of these significant events, the constructed swale would be dry and under normal circumstances, no additional runoff would flow to the existing wetland in the southwest corner of the Davis-Foster Preserve.

We have shared these plans with Staff and have walked the property to discuss this possible solution. We look forward to discussing our problem and proposed solution with the Board on November 10.









RestoringNatureWithFire.com

2854 Parkridge Drive • Ann Arbor • Michigan • 48103 • Office 734-994-3475 • Cell 734-845-0634 • Dave@Restoring-Nature.com

PRESCRIBED BURN PROPOSAL

Prepared for:

Meridian Charter Township

Contact:

Emma Campbell, Land Stewardship Coordinator

ecampbell@meridian.mi.us | 517-853-4614

Prepared by:

David Borneman, LLC

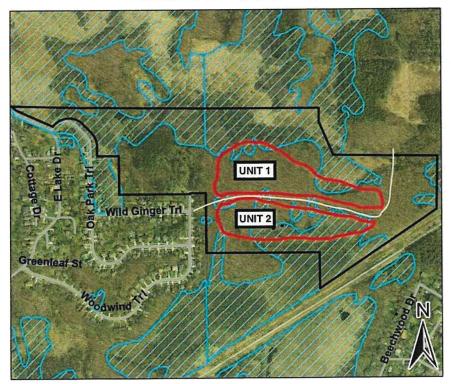
2854 Parkridge Dr, Ann Arbor, MI 48103 Office: 734.994.3475, Cell: 734.845.0634

Dave@Restoring-Nature.com

FEIN: 37-1566550

Site: Approximately 30 acres in two burn units on the Meridian Conservation Easement located at Lake Lansing North.

Lake Lansing North Land Preserve



Project Proposal:

My fee includes the following services:

- Creating a detailed burn plan, including pre-ignition contacts, emergency contacts, maps, appropriate weather conditions, smoke management, site preparation, firing technique, holding plan, wildfire contingency plan, mop up, crew and equipment information.
- Coordinating with Meridian Twp FD Fire Inspector Tavis Millerov and obtaining the appropriate permit (any permit costs incurred will be billed to Meridian Twp).
- Notifying all necessary parties immediately prior to the burn.
- Site Preparation If needed, using a leaf blower to remove leaves from trails serving as burn breaks around the perimeter of the burn unit.
- Posting "Caution-Smoke Ahead" signs on the nearest road(s) during the burn.
- Conducting the prescribed burn during Fall 2021 or Spring 2022 (no later than April 7, 2022), including provision of all necessary equipment and personnel required to conduct the burn.
 - O All personnel assisting me will have prior burn experience and be adequately trained and briefed to participate in this burn safely.
 - All burn personnel will be equipped with the following personal protective equipment: fire retardant clothing, hardhat, face protectors, leather boots, and leather gloves.
 - o I will provide one full-size, 4-wheel-drive truck equipped with a 300-gallon water tank and gasoline-powered water pump with hose; *Argo* ATV with mounted 69-gallon water tank, as needed, depending on site.
 - A full complement of additional hand tools and equipment will also be on hand to use as needed, including backpack water sprayers, drip torches, leaf blowers, rakes, two-way radios, cellular phone, etc.

Property owner is responsible for:

- Notifying neighbors and others in the immediate vicinity in advance about the upcoming burn.
- Assisting with "PR" on-site during the burn, if possible.

Timing/Conditions:

I anticipate that the burn would happen sometime in the afternoon/early evening (between 12:00 noon and 7:00 pm.) Fall 2021, if possible, or Spring 2022; but will be completed no later than April 7, 2022.

Please remember that scheduling too far in advance is difficult because of the need for specific weather parameters during the burn. I would try to coordinate schedules with you a day or two in advance, and then confirm plans and exact times on the morning of the burn day.



Prescribed Fire Credentials:

- 32 years of professional experience conducting prescribed, ecological burns on thousands of acres.
- 27 years as Prescribed Burn Leader for City of Ann Arbor, Natural Area Preservation Division. In that capacity I coordinate the City's entire Prescribed Burn Program, including leading burn trainings and overseeing a burn crew of up to 15 members.
- 21 years (over 500 burns on 10,000+ acres) as Private Contractor conducting prescribed burns in Michigan, Ohio, Indiana, and Illinois.
- 22 years on the Michigan Prescribed Fire Council's Steering Committee. Past Chair.
- Certified as a Prescribed Burn Leader in Ohio and Illinois (no certification program exists in Michigan)

Prescribed Burn Training:

National Wildfire Coordinating Group:

- Introduction to Incident Command System (S-130)
- Squad Boss Training (S-131)
- Beginning Wildland Fire Behavior (S-190) Certified at Level I
- Crew Boss/Single Incident Command (S-230)
- Intermediate Wildland Fire Behavior (S-290) Certified at Level I
- Introduction to Wildland Fire Behavior Calculations (S-390) Certified at Level I
- Smoke Management Techniques (RX 410)
- Introduction to Fire Effects (RX-310)
- Applied Fire Effects (RX-510)

The Nature Conservancy and Tall Timbers Research Station:

Ecological Burning for Burn Leaders (10 days: equivalent to RX-300)

Insurance:

Commercial General Liability - \$1,000,000 per occurrence policy/\$2,000,000 general aggregate Workers' Compensation - \$1,000,000 Commercial Auto Liability - \$1,000,000

Date of proposal/estimate: October 29, 2021

Cost: \$6,975



Past Clients Include:

Private landowners throughout Michigan, Ohio, Illinois, and Indiana

Barry Conservation District

Blandford Nature Center

Black River Ranch Hunt Club

Boy Scouts of America: Camp Greilick

Calvin College

Canada Creek Hunt Club

Charter Township of Canton

Charter Township of Chikaming

Charter Township of Pittsfield

Charter Township of Plymouth

Charter Township of Springfield

Charter Township of Superior

Charter Township of Oakland

Charter Township of Williamstown

City of Auburn Hills

Cityof Birmingham

City of Detroit, Belle Isle Park

City of Southfield

Dahlem Nature Centre, Jackson, MI

Dominican Sisters of Grand Rapids

Ducks Unlimited

Erie Marsh Hunting and Fishing Club

Environmental Consulting & Technology, Inc.

First Unitarian Universalist Congregation of Ann

Arbor

Golder Associates, Inc.

Grosse Ile Land Conservancy

Henry Ford Estate

Huron Clinton Metropolitan Authority (HCMA)

Hoffman Estates Parks, IL

Howard Cooper, Inc.

Indiana Department of Natural Resources:

Nature Preserves Commission

Ingham County Drain Commissioner

Island Lake Homeowners Assn.

Kanar Gaming Enterprises

Kresge Foundation

Land Conservancy of West Michigan

Land Architects, LLC

Lawrence Technical University

Legacy Land Conservancy

Little Traverse Conservancy

Meridian Charter Township, MI

Michigan Department of Natural Resources:

Landowner Incentive Program

Michigan Department of Military and Veteran

Affairs: Fort Custer Training Center

Midforest Lodge Hunt Club

Michigan Audubon Society

Michigan Nature Association

Monroe County Parks

MSU Credit Union

Niswander Environmental, LLC

Oakland County Parks

Oakland County Intermediate School District

Ottawa County Parks

Oxford Companies

Parklands Foundation, IL

Pfizer, Inc.

Pall, Inc.

Plymouth Township

ProOuest

Reformed Church of America

River Bend Gardens

Sister Servants of the Immaculate Heart of Mary

Six Rivers Land Conservancy

Starr Commonwealth

Steelcase, Inc.

Superior Township

The Nature Conservancy

Toledo Zoo

Tournament Players Club of Michigan

Trinity Lutheran Church

Turtle Lake Hunt Club

United States Immigration Building

University of Michigan

Walnut Hills Subdivision

Washtenaw Intermediate School District

Washtenaw County Parks

Wayne County Airport Authority, Detroit Metro

Airport

Wayne County Parks

WH Canon Company



REFERENCES

Charter Township of Springfield, MI in cooperation with MI DNR Landowner Incentive Program

Prescribed Burns: Burn units of 57-70 acres of fen and woodland

Burned 2005-2011, 2014, 2019, 2021

Contact: Mike Losey, Natural Resources Manager, mlosey@springfield-twp.us; 248-846-6508

Cherry Hill Nature Preserve, MI

Prescribed Burns: 20-30 acres of remnant, mature woods

Burned 2005-2021

Contact: Juan Bradford, Administrator, jbradford@superior-twp.org, 734.480.5502

Hoffman Estates Parks and Recreation, Hoffman Estates, IL

Prescribed Burns: Victoria Park, Black Bear Park, Rohrssen Park and Hunter's Ridge and Wetlands.

Burns of 7-90 acres in dense residential areas of Village of Hoffman Estates from 2015-2019

Contact: Craig Talsma, Deputy Director, Director of Finance and Admin, ctalsma@heparks.org;

847.310.3607

Huron Clinton Metropolitan Authority (HCMA), Southeastern Michigan

Prescribed Burns: Multiple parks, including Kensington (25-, 38-, and 45-acre prairies); Stony Creek

(11- and 4-acre prairies); Metro Beach (3-acre old field); Oakwoods (3-acre prairie); Indian Springs

(2-acre prairie, 5-acre wetland); and Lake Erie (1-acre prairie)

Burned multiple times between 2001-2021

Contact: Tyler Mitchell, Chief of Natural Resources and Regulatory Compliance,

tyler.mitchell@metroparks.com, 810.494.6019

Indiana Nature Preserve Commission (INPC)

Prescribed Burns: Various state parks and habitats, including sites with federally listed species. Burns from

10-30 acres; burned 2009-2021

Contact: Derek Nimetz, Regional Ecologist, INDNR, dnimetz@dnr.in.gov, 219.928.3997

Oakland County Department of Parks, MI

Prescribed Burns: Various county parks and habitats, including Rose Oaks; Orion Oaks; Lyon Oaks,

Highland Oaks, Groveland Oaks; and Independence Oaks

Burn units ranging from 10-118 acres; burned 2007-2021

Contact: Sarah Cook-Maylen, Natural Resources Coordinator, maylens@oakgov.com, 248-343-1353

Washtenaw Intermediate School District, Ann Arbor, MI

Native Landscaping Project: Master Planning and Implementation: 2001

Prescribed Burn: 4-acre planted prairie and Phragmites

Burned 2002-2010, 2013-2015

Contact: Laura VanFaasen, lvanfaas@wash.k12.mi.us, O: 734-994-8100 ext. 1210, C: 734.717.5048

Wayne County Airport Authority, Detroit, MI

Prescribed Burns: DTW 12-acre prairie; Crosswinds Marsh: 30-acre Threatened Plant Mitigation wetland

Burned 2006-2020

Contact: Bryan Wagoner, Environmental Administrator of External Affairs, 734.247.3686

Wolverine Lake Village, Commerce Township, MI

Prescribed Burns: Two small areas of Phragmites

Burned 2019

Contact: Michael Smith, Administrator, admin@wolverinelake.com, O: 248.830.5682, C:248.624.1710

~ Additional detailed references available specific to habitat, burn unit size, or entity. ~



Prescribed Burn Treatment Company Form Meridian Township Parks and Recreation

Business Name: David Borneman, LLC	
Contact: David Borneman	Email: _Dave@Restoring-Nature.com
Address: 2854 Parkridge Drive, Ann Arbor	, MI 48103
Phone Number: <u>734-845-0634</u>	Fax: NA
Total Not-to-Exceed Cost: \$6,975	
Bids will be accepted up until 5:00 pm on Octol	per 29 th 2021.



Meridian Township 5151 Marsh Road Okemos, MI 48864

P 517.853.4000 F 517.853.4096

Township Board:

Ronald J. Styka Township Supervisor

Deborah Guthrie *Township Clerk*

Phil Deschaine Township Treasurer

Patricia Herring Jackson Township Trustee

Dan Opsommer *Township Trustee*

Kathy Ann Sundland Township Trustee

Courtney Wisinski *Township Trustee*

Frank L. Walsh Township Manager October 2021

Dear Meridian Township Resident,

On behalf of the Township Board, Commissions, Staff and neighborhoods of Meridian Township, we invite you to join us in preserving and enhancing one of our community's greatest assets; our wetlands. You are receiving this letter because you have a wetland on or adjacent to your property.

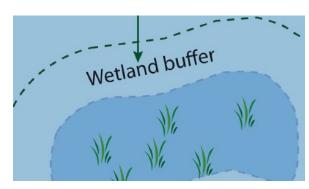
Protecting wetlands is important for many reasons. Wetlands act like a sponge, protecting us from flooding. They also help recharge our groundwater/drinking water and provide other benefits such as protection of fish, wildlife, and pollinator habitats.

This letter and the enclosed brochure describe these benefits and current laws that may affect your property.

There are different types of wetlands and most are protected. Protected wetlands include:

- 1. Wetlands, equal to or greater than 1/4 acre and determined to be essential to the preservation of natural resources.
- 2. Wetlands contiguous to inland lakes, streams, rivers or ponds (or within 500 feet of the ordinary high water mark)*
- 3. Wetlands, determined by the State of Michigan, are essential to the preservation of the natural resources of the State from pollution, impairment or destruction.
 - * Unless determined by Michigan Department of Energy, Great Lakes, and the Environment (EGLE) that there is no surface or groundwater connection between the wetland and the water body.

A wetland buffer or natural vegetation strip is also protected by law. Wetland buffers/vegetation strips help minimize erosion, stabilize streambanks and wetland edges, protect water quality, preserve wildlife habitat and protect from flooding.



The wetland buffer is typically 20-50 feet wide, depending upon the size and location of wetland, and is treated the same as the wetland.

There are some things that you can and can't do in a protected wetland and wetland buffer/vegetation strip. For example:

Do... Don't...

Preserve natural ground cover to the fullest extent feasible. Trees, shrubs, and native plants have deep roots which help protect your property from flooding.

Plant perennial native species, especially on exposed soil and steep slopes. Lawns have shallow roots and do not protect from flooding.

Minimize pruning and removal of trees, shrubs, and ground covers unless providing access or views to water features, removing hazardous or nuisance exotic vegetation, or improving wildlife habitat.

Do not alter existing soil and organic matter. Please do not add or remove soil, stones, yard debris, etc. Do not add fertilizers or pesticides.

Do not mow or clear cut more than 10% of the length of the buffer strip. A lawn is not considered a natural vegetation strip.

Do not remove stumps. Live root systems must be maintained to provide erosion control.

Do not build structures or grade the soil without contacting the Planning Department.

We hope that this information is helpful in understanding the importance and benefits of our wetlands in reducing flooding, protecting our water resources, and preserving the environmental quality and natural beauty of our community.

If you'd like to learn more about wetlands, natural landscaping, rain/pollinator gardens, land preserves, native plant sales, or the Meridian Conservation Corps, please visit our website at www.meridian.mi.us/GreenMeridian. For code or construction-related questions, please contact the Community Planning & Development Department at 517.853.4500.

Thank you,

John Sarver, Chair

(Tolm, Sarver

Meridian Environmental Commission

Wetlands in the Township

Most people are familiar with the cattail or lily pad wetland found in areas with standing water, but wetlands can also be grassy meadows, shrubby fields, or mature forests.

Many wetland areas have only a high ground water table and standing water may not be visible.

According to the U.S. Fish and Wildlife Service, over 50% of Michigan's original wetlands have been drained or filled, thereby making the protection of remaining wetlands that much more important.

Over 25% of Meridian Township is covered in wetlands (5778 of 20,160 acres), making wetland stewardship an important responsibility and opportunity in every neighborhood.

The Township has a wetland ordinance that protects wetlands as small as 1/4 acre. This ordinance requires a 20-foot natural vegetation buffer.

Want to help protect our wetlands?

Volunteer with the Meridian Township Conservation Corp! Call Emma Campbell at 517.853.4614 for more info!

Also visit MyWatersheds.org, MGROW.org, and Meridian.mi.us/gogreen to learn more about local water protection efforts.

Your actions can help keep our water clean, reduce pollution, and prevent flooding!



Help keep Meridian Township beautiful! Find out how and spread the word!

Meridian.mi.us/GoGreen www.MyWatersheds.org







Protect Our Wetlands

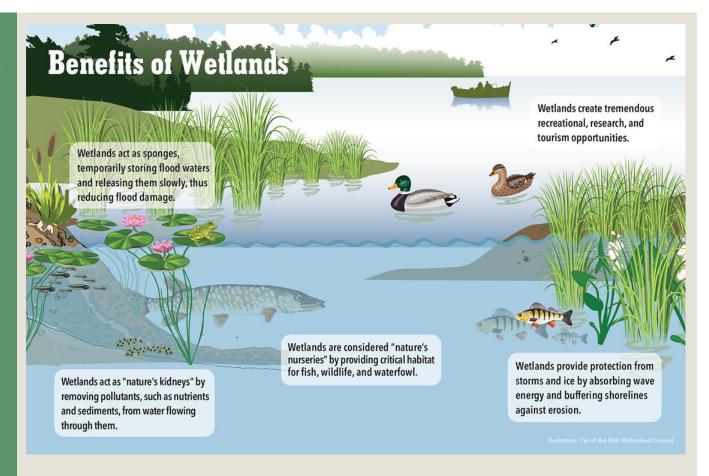
Your actions can help keep our water clean



Wetland Services

Wetlands are a critical part of our environment helping reduce flooding, clean water, provide habitat, and offer other benefits:

- Water storage wetlands act as a sponge to absorb water during floods and slowly release the water back during droughts. They also slow down the water's momentum and decrease erosion.
- Water filtration wetlands allow pollutants like sediments and nutrients to be absorbed or settle to improve water quality.
- <u>Habitat and nurseries</u> wetlands are diverse ecosystems that are home to a wide variety of plants and animals.
- <u>Recreation</u> wetlands offer opportunities to hike, birdwatch, canoe and enjoy nature along with educational opportunities for youth and adults alike
- Reduction of mosquito populations a healthy, functioning wetland can actually reduce mosquito populations by providing proper habitat for the natural enemies of mosquitos and by preventing or reducing flooding.



Together We Can Protect Our Wetlands

- DO plant native vegetation on your property and remove invasive species.
- DO protect the required 20 foot natural vegetation buffer around the wetlands.
- Do not remove trees, stumps, roots and other natural vegetation from the wetlands or buffer.
- Do not mow in the wetlands or within the buffer.
- Use of chemicals, fertilizers and pesticides in the wetlands or the 20 foot natural vegetation buffer is prohibited. For information about invasive species removal, call 517.853.4614.

- Do not put yard waste or "fill material" (soil/ dirt, stones, mulch, etc.) in wetlands or within the 20 foot natural vegetation buffer.
- Contact the Planning Department at 517.853.4560 if you are planning construction or landscaping within 40 feet of a wetland.
- Contact Public Works at 517.853.4440 if you are moving dirt or disturbing soil. A Soil Erosion/ Sedimentation Control Permit may be required.
- Inform neighbors, developers, and state and local decision-makers about the importance of wetlands.