



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION
REGULAR MEETING
December 6, 2023 7 pm

Town Hall Meeting Room, 5151 Marsh Rd, Okemos

1. CALL MEETING TO ORDER
2. PUBLIC REMARKS
3. CHANGES TO/APPROVAL OF AGENDA
4. APPROVAL OF MINUTES (p 2)
5. NEW BUSINESS

Environmental Commissioner Applicants and Reappointments (p 4-14)

Food Waste in Township Ordinances (p 16)

2024 Green Grants (p 17)

Other?

6. UNFINISHED BUSINESS

Goals for 2024 (p 20)

7. REPORTS AND ANNOUNCEMENTS

Staff update: <https://sites.google.com/view/staff-update/home>

Staff, Liaisons, committees/teams, Okemos Earth Club, invited to share updates.

8. PUBLIC REMARKS

9. ADJOURNMENT

Environmental Commission Minutes: October 4, 2023 (corrected)

Attending: John Sarver, Ned Jackson, Tom Frazier, Bill McConnell, LeRoy Harvey, Amelia Saffron, Graham Diedrich. Excused: Kendra Grasseschi, Emma Andrecheck, Courtney Wisinski, and Anna Colby.

Minutes: Environmental Commission (EC) Minutes adopted without changes

New Business:

Energy Team Recommendations about next Solar Project: Sarver mentioned that Dan Opsommer recommended the North Fire station as the next solar project. The Energy Team supports this recommendation for several reasons including visibility, the opportunity to demonstrate and gain experience with carport-mounted systems, etc. McConnell mentioned Wisinski's memo about the E.C. Budget indicating support for solar project in 2024 and other EC-related initiatives.

Old Business:

Climate Sustainability Plan: Jackson incorporated some of Grasseschi's comments in the latest water section. Harvey also added comments from Sam Lovall. There was discussion about how we might measure progress for green stormwater infrastructure (GSI) improvements. McConnell suggests that GSI is now included more regularly in local and regional projects. Sarver suggested we might use the number of projects... For example, three-five green grants. Harvey mentioned the Green Infrastructure audit might facilitate the numbers. McConnell mentioned that low impact development is already called out in our Master Plan, Transportation Plan and other regional priorities. For example: road projects that require 5% of funds for non-motorized transportation. Jackson suggested that something similar could be suggested for GSI. Frazier suggested a correction about the number of people served by ELMWSA (includes Lansing and East Lansing) and to strike Township.

On a related note: McConnell attended a presentation on the Montgomery Drain which includes several features to reduce the amount of run-off and pollution from the Frandor area by 90%. McConnell suggests that we might invite the Drain Commissioner's office to discuss ways we might collaborate. McConnell mentioned that the Okemos Consolidated Drain (serving the Mall) might include some creative green infrastructure. Sarver asked if there are green infrastructure planned for this. There is uncertainty, but McConnell mentioned the compensating cut related to Buddies Pizza behind the main fire station.

Sarver asked about next steps. Suggestions include adding pictures, preparing a "Flipsnack" (accessible format for the public, with more likelihood for public comment). Harvey will check with Communications about preparing a flipsnack – as well as how editing might occur. Sarver asked about timing for approval by the Township Board. McConnell suggested a future presentation to the Board and resolution. Harvey will check with Planning Department about the timing and the language for a resolution. We will check with Colby to see if the Food section is complete and if there is an update for our next meeting.

Staff Update:

Reappointments: Sarver, Saffron, Frazier confirmed reappointment. Harvey reports that Emma Andrechek has a conflicting commitment and needs to resign. Diedrich and McConnell expire 2025. Jackson, Grasseschi, Colby are to be confirmed. McConnell will check with Colby and Grasseschi about

reappointment. There are currently openings for two Student Alternates. Frazier asked about staggering terms so we don't have as many positions expiring at the same time.

Harvey mentioned the upcoming "green tours" on October 7 as well as a table at the Farmers Market.

Energy Team: Sarver mentioned the Solarize workshop planned for Oct 17 at 6pm. There have been several successful Solarize workshops over the summer.

Green Grants: Sarver reported being asked by a reporter about the Green Grants program.

Green Team: Frazier provided an update on the electronics recycling event which included 400 visitors. Over 40 appliances were collected. 60+ volunteers helped including many Okemos High School students, Key Club members (Haslett) and several Township employees. Frazier also mentioned the eco-tours this coming weekend. There was also discussion about the grant proposal for a recycling center, which was not approved and the possibilities for next steps. Harvey mentioned interest from the Food Team about organics collection. McConnell asked about interest in decentralized collection.

Brownfield: Jackson reported that there has not been a meeting recently. He also reports activity at the old L & L Shopping Center.

Earth Club: Saffron reported that Stella Chen and Sarah Lee are the new co-chairs of the Earth Club. They had their first meeting on September 9. Projects are continuing such as the podcast and sustainable fashion.

Planning Commission: McConnell reported that there have been some concerns about a potential development near Park Lake and Grand River. There are similar concerns around Park Lake and Burcham. There is some potential to see a wetland use permit. There are nearby neighborhoods that are concerned about the development.

Transportation: The Transportation Commission has had some resignations. More members are needed. Harvey mentioned that Director Opsommer recently did a bike tour with Tim Potter and others. There has been some discussion about bike-friendly communities and Safe Routes to School. The County Road Department was not excited about a recommendation to put refuge islands on Bennett Rd by Chippewa School.

Meeting adjourned at 8:03 PM

[Recording at <https://meridianmi.new.swagit.com/videos/273272>]

2024 Environmental Commission

BILL MCCONNELL (12/31/25, 3 year term) CHAIR	517.763.7824 mcconn64@msu.edu	
ANNA FISCHER COLBY (12/31/25, 3 year term) VICE CHAIR	314.221.7829 anna.j.colby@gmail.com	
GRAHAM DIEDRICH (12/31/25, 3 year term) MSU STUDENT	517.974.6046 diedgr@msu.edu	
TOM FRAZIER (12/31/2024, 3 year term)	517.974.5584 Fraziertom58@gmail.com	
KENDRA GRASSESCHI (12/31/24, year term) LPAB LIAISON	517.282.0679 kendrathelen@gmail.com	
NED JACKSON (12/31/23, 3 year term) BRA LIAISON	517.285.4319 jackson@chemistry.msu.edu	Term expiring?
AMELIA SAFFRON (12/31/24, 1 year term) OHS STUDENT	517.599.9332 ameliagsaffron@gmail.com	Pending reappointment
JOHN SARVER (12/31/26, 3 year term)	517.290.8602 johnsarver3@gmail.com	Pending reappointment
Student and Student Alternate Positions		Open
Student and Student Alternate Positions		Open
COURNEY WISINSKI (TRUSTEE LIAISON)	517.410.1527 wisinski@meridian.mi.us	
STAFF: LEROY HARVEY	517.505.2809 harvey@meridian.mi.us	Through August 2024

G:\Engineering & Public Works\LeRoy\meridian2022\environmental commission\admin

Please send corrections to harvey@meridian.mi.us 11/9/2023

Andrea Paul Application

* 1. I am interested in service on one or more of the following public bodies as checked below:

Brownfield Redevelopment Authority *
Environmental Commission
Lake Lansing Watershed Advisory Committee *
Land Preservation Advisory Committee

*** 2. Summarize your reasons for applying to do this type of service**

I am a recent MSU graduate from the Fisheries and Wildlife Department and I am seeking to do environmental related work here in my hometown of Okemos. I am very passionate about conservation, habitat restoration and environmental planning. I want to have a career that makes positive impacts to the environment and I am seeking to get my feet wet in new experiences.

*** 3. Describe education, experience or training which will assist you if appointed.**

I have a Bachelor's of Science in Fisheries and Wildlife with a concentration in Conservation Biology and a minor in Environmental Studies and Sustainability. I have experience working as a Research Assistant for the Data Intensive Limnology Lab in the Department of Fisheries and Wildlife and as a Wildlife Rehabilitation Intern for a wildlife rehabilitation center in East Lansing. I have developed skills in wildlife management, ArcGIS and field sampling.

(Attach resume if available)

[AMP Resume.pdf](#)

* Full Name

Andrea Paul

*** Occupation**

College Graduate

*** Place of Employment**

Unemployed

* Home Address

2678 Morning Glory Dr.
Okemos 48864

* Phone (Day)

517.410.2795

* Phone (Evening)

517.410.2795

*** Email**

andrea.paul1719@gmail.com

*** Please type your name in the box below as a digital signature**

Andrea Paul

*** Date and Time**

11/07/2023

Other than the Downtown Development Authority Board and the Economic Development Corporation, persons appointed to Meridian Township boards and commissions must be a resident and elector (if of voting age) of the Township during the term of office. Excessive absences may be cause for review of appointment. The policy for appointment of candidates to the various public service positions is based on the following criteria: desire to serve, experience, expertise, availability of time to serve, and maintenance of equitable geographic representation. In most instances it will be desirable to develop further information through a personal interview. This application will be retained in township files for two years.

Andrea Paul

(517) 410-2795

andrea.paul1719@gmail.com

Education

Bachelor's of Science in Fisheries and Wildlife - Michigan State University 2023

Environmental Studies and Sustainability Minor

Concentration in Conservation Biology

GPA: 3.89/4.0

Experience

Data Intensive Limnology Lab at the MSU Department of Fisheries and Wildlife, 480

Wilson Rd, East Lansing, MI 48824 - Research Assistant

May 2022 - April 2023

6-40 hours/week

- Analyzed and managed data using R and ArcGIS to determine the effects of wildfires on lake water quality.
- Collected data on water quality using various field sampling techniques from boats and canoes.
- Examined past research papers, state environmental data and other website databases to further the understanding of the research objective.
- Organized data presentations for workshop presentations to collaborate between MSU team members.

Study Abroad Program - Sustaining South African Wildlife: Cash, Crime, Conflicts and Conservation

South African Wildlife College - Springvalley Farm 200KU Kempiana Nature Reserve,

Orpen Road, Hoedspruit, 1380, South Africa

July 2022- August 2022

- Assessed human-wildlife conflicts, examined the role of hunting and the hunting industry, culling and diseases have on wildlife conservation and protection.
- Practiced intercultural communication with government officials, scientists, researchers, land managers and game rangers on conservation efforts.
- Participated in elephant collaring and rhino conservation tactics with research specialists to collect data on species and prevent poaching.

Dog Gone Fun, 2844 Atrium Rd, Okemos MI, 48864 - Team Leader

June 2020 - May 2022

Promotions: Team Leader, Pack Leader

- Trained and evaluated employees on dog handling and educational progress.
- Monitored behaviors and eliminated safety hazards to minimize animal injury

- risk.
- Followed strict safety and cleaning procedures to promote animal wellbeing.
- Administered special food formulas and medications to individual animals based on unique dietary and medicinal needs.

Nottingham Nature Nook, 16848 Towar Ave, East Lansing, MI 48823 - Wildlife

Rehabilitation Intern

May 2021 - August 2021

36 hours/week

- Fed, cleaned and nurtured injured/orphaned fawns, squirrels, rabbits, and birds.
- Performed physical therapy and administered medication.
- Answered phone calls and questions from the public.
- Released healthy animals back into their natural habitat.

Skills

Computer skills (ArcGIS, Microsoft Excel, Microsoft Office, R), data and research analysis, water sampling, cost-analysis, budgeting, training, report and technical writing, habitat management planning, environmental assessments, literature review, GPS, customer service, data organization, time management, digital marketing, oral communication, teamwork, leadership, problem-solving.

Publications

McCullough, I. M., Brentrup, J. A., Wagner, T., Lapierre J., Henneck, J, **Paul, A. M.**, Belair, M., Moritz, M. A. and C. T. Filstrup. (2023). Fire characteristics and hydrologic connectivity influence short-term responses of north temperate lakes to wildfire.

Geophysical Research Letters, 50, e2023GL103953.

<https://doi.org/10.1029/2023GL103953>

Awards

- Dean's List Years 2019-2022
- MSUFCU Internship Scholarship
- Michigan Competitive Scholarship
- MSUFCU Endowment Study Abroad Scholarship
- CANR Education Abroad scholarship
- Employee of the week - Dog Gone Fun, 2020

Volunteer Work

- Soup Kitchen Captain of ACTION - Volunteer organization for the Okemos/Lansing area
- Okemos Outreach - Free infant daycare organization for the South Chicago area
- National Honor Society - Provide community assistance in the

- Okemos/Lansing Area
- Capital Area Humane Society and Ingham County Animal Control

Clubs

- MSU Fisheries and Wildlife Club
- Brushstrokes, Fundraising Coordinator of 2019
- Pre-Veterinary Medical Association
- CHAARG

Personal and Professional References Upon Request

Yu Man Lee Application

* 1. I am interested in service on one or more of the following public bodies as checked below:
Environmental Commission

* **2. Summarize your reasons for applying to do this type of service**

I would like to apply to serve on the Environmental Commission because I recognize and value the importance of a healthy environment to quality of life in Meridian Twp and in general and I would like to help the Twp continue and improve efforts to maintain a healthy environment and conserve the natural resources in our community for current and future generations.

* **3. Describe education, experience or training which will assist you if appointed.**

My educational and work background is in the natural resources and conservation field. I have been a conservation scientist conducting research and education and outreach on rare species and diverse natural communities, particularly amphibians and reptiles and wetlands, in Michigan and the Great Lakes region for over 25 years. I provide information and technical assistance to diverse stakeholders. I also have served on Meridian Twp's Land Preservation Advisory Board for a number of years.

(Attach resume if available)

[Yu Man Lee Resume CV Dec2022.pdf](#)

* Full Name

Yu Man Lee

* **Occupation**

Conservation Scientist

* **Place of Employment**

Michigan Natural Features Inventory, Michigan State University

* Home Address

3559 E. Hiawatha Drive
Okemos 48864

* Phone (Day)

517.449.7900

* Phone (Evening)

517.449.7900

* **Email**

leeyum@msu.edu

* **Please type your name in the box below as a digital signature**

Yu Man Lee

* **Date and Time**

11/08/2023

Other than the Downtown Development Authority Board and the Economic Development Corporation, persons appointed to Meridian Township boards and commissions must be a resident and elector (if of voting age) of the Township during the term of office. Excessive absences may be cause for review of appointment. The policy for appointment of candidates to the various public service positions is based on the following criteria: desire to serve, experience, expertise, availability of time to serve, and maintenance of equitable geographic representation. In most instances it will be desirable to develop further information through a personal interview. This application will be retained in township files for two years.

YU MAN LEE

Michigan Natural Features Inventory, Michigan State University Extension, P.O. Box 13036, Lansing, MI 48901-3036, Tel: 517-284-6201 (W), 517-449-7900 (C), Fax: 517-241-0012, Email: leeyum@msu.edu

Education:

1997 M.S., Wildlife Science, Oregon State University, Corvallis, OR
1991 B.S., Natural Resources, University of Michigan, Ann Arbor, MI

Professional Experience:

1997 – Present Conservation Scientist, Zoologist, Michigan Natural Features Inventory (MNFI), Michigan State University Extension (MSUE).
2007-2009 Interim Director, Michigan Natural Features Inventory, MSUE.

Primary Focus Areas:

- ◆ 25 years designing and conducting field inventory, research, and monitoring of Michigan's native ecosystems and rare and declining species, particularly amphibians and reptiles
- ◆ 22 years delivering biodiversity-focused workshops and trainings to professional and public audiences
- ◆ 11 years studying vernal pools, including mapping, monitoring, training, education and outreach, and coordinating a citizen science-based vernal pool mapping and monitoring program in Michigan

Select Recent Grants Awarded:

- ◆ Investigating the Use of Digital Surface Models to Model Vegetation Succession to Inform Conservation and Recovery of Eastern Massasaugas. 2022-2023. Sponsor: Michigan Department of Natural Resources (MDNR). Partner: Michigan Tech Research Institute. Award: \$26,000.
- ◆ Conservation of Blanding's and Spotted Turtles in Michigan and Ohio. 2022-2024. Sponsors: U. S. Fish and Wildlife Service (USFWS), Competitive State Wildlife Grant and Ohio and Michigan Departments of Natural Resources. Partners: Toledo Zoo, Ohio State University, Purdue University-Ft. Wayne, Wittenberg University, Grand Valley State University (GVSU), John Ball Zoo (JBZ). Award: \$499,945 (Michigan portion: \$238,333).
- ◆ Upper Midwest Turtle Conservation: Phase 3. 2021-2024. Sponsors: USFWS Competitive State Wildlife Grant and Ohio and Michigan Departments of Natural Resources. Partners: Minnesota, Wisconsin, and Iowa Departments of Natural Resources, GVSU, JBZ. Award: \$997,925 (Michigan portion: \$249,627).
- ◆ Facilitating and Implementing Eastern Massasauga Conservation and Recovery in Michigan. 2021-2025. Sponsors: USFWS Endangered Species Recovery Challenge Grant and Michigan Nature Association. Partners: GVSU, MDNR, Springfield Township. Award: \$670,896 (MNFI portion: \$322,365).
- ◆ Blanding's Turtle Conservation in the Lake Erie Watershed. 2019-2023. Sponsors: USFWS Competitive State Wildlife Grant and Ohio and Michigan Departments of Natural Resources. Partners: Toledo Zoo, Ohio State University, Purdue University-Ft. Wayne. Award: \$500,000 (Michigan portion: \$177,299).
- ◆ Understanding and Enhancing Connectivity of Michigan's Eastern Massasauga Rattlesnake Populations to Guide Management and Conservation Efforts. 2017-2020. Sponsor: U.S. Geological Survey Science Support Partnership. Partners: USFWS and GVSU. Award: \$164,589 (Michigan portion: \$34,315).
- ◆ Assistance with an Eastern Massasauga Population Study at Camp Grayling. 2019-present. Sponsors: Michigan Department of Military and Veteran Affairs and DLZ. Award: \$72,395.
- ◆ Promoting Healthy Watersheds and Healthy Communities by Integrating Ecosystem Study, Citizen Science and Stewardship. 2016–2020. Sponsor: National Oceanic and Atmospheric Administration, Bay Watershed Education (BWET) program. Award: \$150,000
- ◆ Identifying and Mapping Vernal Pools in the Hiawatha National Forest. 2014-2015. Sponsor: U.S. Forest Service, Hiawatha National Forest. Award: \$30,000
- ◆ Upper Midwest Riverine Turtle Habitat Improvement. 2013-2016. Sponsors: USFWS Competitive State Wildlife Grant and Michigan Department of Natural Resources. Partners: Minnesota, Wisconsin, and Iowa Departments of Natural Resources. Award: 493,903 (Michigan portion: \$100,000).
- ◆ Identifying and Mapping Vernal Pools on State Forest Lands. 2013-2014. Sponsors: Verso Paper Corp, Michigan Forest Products Council, Michigan Department of Natural Resources. Award: \$42,700
- ◆ Developing an Approach for Identifying, Mapping, and Assessing Vernal Pools in Michigan. 2010-2014. Sponsors: Michigan Department of Environmental Quality, U.S. Environmental Protection Agency Region 5 Wetland Program Development Grant. MNFI Award: \$390,296.

Select Publications and Technical Reports:

- ◆ Bassett, T.J., A.A. Cole-Wick, P. Badra, D.L. Cuthrell, H.D. Enander, P.J. Higman, **Y. Lee**, C. Ross, and L.M. Rowe. 2022 Natural Features Inventory of Fort Custer Training Center. Michigan Natural Features Inventory Report Number 2022-09, Lansing, MI. 91 pp. + xi, Appendices
- ◆ **Lee, Y.** 2020. Assistance with the Eastern Massasauga (*Sistrurus catenatus*) Population Survey and Education and Outreach for the Camp Grayling Joint Military Training Center 2019. Michigan Natural Features Inventory Report No. 2020-04, Lansing, MI. 38 pp.
- ◆ Lincoln, J.M., A.P. Kortenhoven, P.J. Badra, **Y.M. Lee**, H.D. Enander, M.J. Monfils, A. Cole-Wick, C.M. Wilton, and J.G. Cohen. 2020. Natural Features Inventory and Management Recommendations for Maple River State Game Area. Michigan Natural Features Inventory, Report Number 2020-10, Lansing, MI. 126 pp.
- ◆ Cole-Wick, A., L. Rowe, P. Badra, T. Bassett, **Y. Lee**, C. Ross, J. Paskus, and M. Monfils. 2020. Natural Features Inventory of Saginaw Chippewa Indian Tribe Lands. Michigan Natural Features Inventory, Report Number 2020-13, Lansing, MI, USA.
- ◆ Bradke, D. R., R. L. Bailey, J. F. Bartman, H. Campa, III, E. T. Hileman, C. Krueger, N. Kudla, **Y. Lee**, A. J. Thacker, and J. A. Moore. 2018. Sensitivity Analysis Using Site-Specific Demographic Parameters to Guide Research and Management of Threatened Eastern Massasaugas. *Copeia* 106(4):600-610.
- ◆ Hileman, E. T., R. B. King, J. M. Adamski, T. G. Anton, R. L. Bailey, S. J. Baker, N. D. Bieser, T. A. Bell, Jr., K. M. Bissell, D. R. Bradke, H. Campa, III, G. S. Casper, K. Cedar, M. D. Cross, B. A. DeGregorio, M. J. Dreslik, L. J. Faust, D. S. Harvey, R. W. Hay, B. C. Jellen, B. D. Johnson, G. Johnson, B. D. Kiel, B. A. Kingsbury, M. J. Kowalski, **Y. Lee**, A. M. Lentini, J. C. Marshall, D. Mauger, J. A. Moore, R. A. Paloski, C. A. Phillips, P. D. Pratt, T. Preney, K. A. Prior, A. Promaine, M. Redmer, H. K. Reinert, J. D. Rouse, K. T. Shoemaker, S. Sutton, T. J. VanDeWalle, P. J. Weatherhead, D. Wynn, A. Yagi. 2017. Climatic and Geographic Predictors of Life History Variation in Eastern Massasauga (*Sistrurus catenatus*): A Range-wide Synthesis. *PLoS ONE* 12(2): e0172011. doi:10.1371/journal.pone.0172011
- ◆ Bourgeau-Chavez, L.L., **Y. Lee**, M. Battaglia, S. L. Endres, Z. M. Laubach, and K. Scarbrough. 2016. Identification of woodland vernal pools with seasonal change PALSAR data for habitat conservation. *Remote Sensing* 8:490-511.
- ◆ **Lee, Y.** 2015. Surveys and Monitoring for the Hiawatha National Forest – Vernal Pools: FY2015 Report. Michigan Natural Features Inventory Report No. 2016-06, Lansing, MI. 85 pp.
- ◆ **Lee, Y.** 2014. Identifying and Mapping Vernal Pools on State Forest Lands in Michigan’s Upper Peninsula. Michigan Natural Features Inventory Report No. 2014-27, Lansing, MI. 71 pp.
- ◆ **Lee, Y.**, P. J. Badra, M. Battaglia, L. L. Bourgeau-Chavez, H. D. Enander, D. A. Hyde, B. J. Klatt, Z. Laubach, M. J. Monfils, M. R. Penskar, K. Scarbrough, and E. H. Schools. 2014. Developing an Approach for Identifying, Mapping, and Assessing Vernal Pools in Michigan. Michigan Natural Features Inventory Report No. 2014-07, Lansing, MI.
- ◆ **Lee, Y.** 2012. Developing a Conceptual Framework of Recommendations for Monitoring Amphibians and Reptiles Using Non-Calling Surveys and Volunteers. Final Report to the Michigan Department of Natural Resources. Michigan Natural Features Inventory Report No. 2012-11, Lansing, Michigan. 24 pp. + apps.
- ◆ Attum, O., **Y. Lee**, and B. A. Kingsbury. 2009. The Status of the Northern Population of the Copper-bellied Watersnake, *Nerodia erythrogaster neglecta*. *Northeastern Naturalist* 16:317–320.
- ◆ Attum, O., **Y. M. Lee**, J. H. Roe and B. A. Kingsbury. 2008. Wetland complexes and upland–wetland linkages: landscape effects on the distribution of rare and common wetland reptiles. *Journal of Zoology* 275:245-251.
- ◆ Attum, O., **Y. M. Lee**, J. H. Roe and B. A. Kingsbury. 2007. Upland–wetland linkages: relationship of upland and wetland characteristics with watersnake abundance. *Journal of Zoology* 271: 134–139.

Professional Affiliations:

- ◆ Member, Michigan Amphibian and Reptile Technical Advisory Committee, 2004-present
- ◆ Advisory Board Member, Michigan Partners in Amphibian and Reptile Conservation, 2022-present
- ◆ Co-Chair, Michigan Rare Turtle Working Group, 2019-present
- ◆ Member, Copperbelly Watersnake Working Group, 2011-present
- ◆ Member, Michigan Eastern Massasauga Working Group and Research, Habitat Management, and Education and Outreach Subcommittees, 2015-present
- ◆ Co-Chair, Michigan Vernal Pools Partnership and Education & Outreach Subcommittee, 2015-present
- ◆ Treasurer and Board Member, Michigan Wetlands Association, 2019-present
- ◆ President and Board Member, Michigan Nature Association, 2015-present
- ◆ Member, Community and Natural Resources Development Association, MSUE, 2018-present
- ◆ Member, Michigan Chapter of Epsilon Sigma Phi, Michigan State University Extension, 2020 - present

Joshua Nahum Application

* 1. I am interested in service on one or more of the following public bodies as checked below:

Environmental Commission
Planning Commission
Transportation Commission *
Zoning Board of Appeals

* **2. Summarize your reasons for applying to do this type of service**

My wife and I are both professors at MSU. We purchased a house and intend to stay in Meridian Township for the rest of our lives. And as such, we want to contribute to our community here. I'm an avid road cyclist and bike commuter with an interest in infrastructure, especially pedestrian and cycling infrastructure. During graduate school in Seattle, I was an advocate for improving bike paths and parks. I've a strong sense of justice and equity, and want to help steer the township.

* **3. Describe education, experience or training which will assist you if appointed.**

I worked for over 10 years in residential construction. Then, I completed a PhD in Biology from the University of Washington, Seattle, where I taught classes on Ecology and Environmental Science. As a Professor of Computer Science at MSU, I've served on my department's Curriculum Committee, making decisions that affect many thousands of students. I've been a Precinct Chair in East Lansing for every election since 2020. I've been attending Planning Commission meetings for a few months.

(Attach resume if available)

[Resume.pdf](#)

* Full Name
Josh Nahum

* **Occupation**
Professor

* **Place of Employment**
Michigan State University

* Home Address
1517 River Ter
East Lansing 48823

* Phone (Day)
253.987.6504

* Phone (Evening)
253.987.6504

* **Email**
nahum@cse.msu.edu

* **Please type your name in the box below as a digital signature**
Joshua R Nahum

* **Date and Time**
11/27/2023

Other than the Downtown Development Authority Board and the Economic Development Corporation, persons appointed to Meridian Township boards and commissions must be a resident and elector (if of voting age) of the Township during the term of office. Excessive absences may be cause for review of appointment. The policy for appointment of candidates to the various public service positions is based on the following criteria: desire to serve, experience, expertise, availability of time to serve, and maintenance of equitable geographic representation. In most instances it will be desirable to develop further information through a personal interview. This application will be retained in township files for two years.

Professional Preparation

- **Michigan State University** East Lansing, MI
Professor of Instruction for Dept. of CSE Jan. 2016 - Present
- **Michigan State University** East Lansing, MI
Distinguished Postdoctoral Fellow in the NSF BEACON Center Oct. 2013 - Dec. 2015
- **University of Washington** Seattle, WA
Ph.D. in Biology Sep. 2007 - Oct. 2013
- **University of Washington** Seattle, WA
Bachelors of Science, Biology Sep. 2005 - Sep. 2006

Selected Classes Taught

- **Introduction to Programming II** 2017-Present
Instructor
 - Converted the course to use auto-grading methods.
 - In addition to teaching the C++ programming language, I've revised the course to teach a variety of important programming tools (debuggers, git version control, terminal commands).
 - Manage around 20 Graduate Teaching Assistants and Undergraduate Learning Assistants and searving about 400 students each semester.
- **Database Systems** 2016 - 2022
Instructor
 - Taught the undergraduate database course with a strong emphasis on use and implementation of database principles.
 - Completely restructured the class to emphasize active learning and immediate feedback in all homework and project assignments.
 - Expanded the curriculum to cover transactions, parallel database operations and various non-traditional (NoSQL-style) database systems.
- **Translation of Programming Languages** 2014 - 2019
Instructor
 - Taught the undergraduate compilers course utilizing C++ tooling (Flex and Bison) and Python.
 - The course reinforces many skills covered in other CS courses including: regular expressions, context-free grammars, abstract syntax trees, intermediate code optimizations, and algorithmic thinking.
 - Added Git integration (version control) to the course, allowing auto-grading (using continuous integration via Travis CI), collaboration, and experience with version control systems in a hands-on, practical manner.

• C Fundamentals

Instructor

2016

- Taught the C programming course for electrical engineers with an emphasis on problem decomposition.
- Emphasized modern C programming techniques, teaching C11 language features.
- Utilized HackerRank.com to provide instantaneous feedback on projects and homework via test-driven programming.

• Statistical Methods

Co-Instructor

2015

- Taught a graduate course centered on statistics theory and applications with the R programming language for the Department of Integrated Biology.
- I integrated practical use of version control in addition to heavily restructuring the material covered in the course to include in and out-of-class programming assignments.

Publications

- [1] Joshua R. Nahum, Peter Godfrey-Smith, Brittany N. Harding, Joseph H. Marcus, Jared Carlson-Stevermer, and Benjamin Kerr. A tortoise - hare pattern seen in adapting structured and unstructured populations suggests a rugged fitness landscape in bacteria. *Proceedings of the National Academy of Sciences*, 112(24):7530–7535, 2015.
- [2] Joshua R. Nahum, Brittany N. Harding, and Benjamin Kerr. Evolution of restraint in a structured rock-paper-scissors community. *Proceedings of the National Academy of Sciences*, 108:10831–10838, June 2011.
- [3] Benjamin Kerr and Joshua Nahum. The evolution of restraint in structured populations: Setting the stage for an egalitarian major transition. In Brett Calcott and Kim Sterelny, editors, *The Major Transitions in Evolution Revisited*, pages 127–140. MIT Press, April 2011.
- [4] Joshua Nahum and Benjamin Kerr. Optimal foraging: A bird in the hand released. *Current Biology*, 18(9):R385–R386, May 2008.

Synergistic Activities

• Curriculum Committee

Member

2016 - Present

- Helped steer the undergraduate committee for curriculum development.
- Was partially responsible for interviewing and hiring new faculty to the department.
- Presented active learning techniques and the use of live test-driven development pedagogy at department faculty meetings.

- **College of Engineering High School Outreach**
 - *Lead Instructor* *2017 - Present*
 - Manage a week-long, residential summer workshop for high school students where they learn programming.
 - Teach basic programming skills as well as computer graphics which culminates in the students designing and developing a computer game written in Python.
 - Students learn the principles of software development and collaboratively develop complex projects of their own specification.
- **High School Programming Competition**
 - *Organizer* *2017 - Present*
 - High school students from across the state come to MSU to participate in a programming competition.
 - I serve as one of the organizers and am also responsible for challenge creation and technical support.
 - Approximately half of participants are underrepresented minorities in the field of computer science.
- **Software and Data Carpentry**
 - *Formal Instructor* *2014 - 2016*
 - Taught lessons on basic UNIX commands, shell scripting, R, Python, and version control with git. Workshops are 16 hours long over the course of two or three days and are targeted towards practicing scientists with no prior programming experience.
 - Covered the use of practical computer resources such as Amazon EC2 and S3, as well as, the university's High Performance Computing Cluster.

Awards

- **College of Engineering Withrow Award for Teaching Excellence**
 - *Department of Computer Science and Engineering, MSU* *2017*
 - Every year, each department in the College of Engineering selects one faculty member. This award recognizes outstanding instructional performance.

Tom Frazier, Environmental Commissioner, writes....

This section of the Meridian Township Code of Ordinances just came to my attention:

§ 46-2 Nuisances per se.

[Code 1974, § 51-2]

The following acts, apparatus, accumulations, violations, and activities are hereby declared to be public nuisances:

(1) No person shall maintain or permit to remain on premises owned or occupied by him; or throw, place, or leave; or permit the throwing, placing, or leaving on the premises of another any of the following substances: organic refuse, food wastes, ashes, dead animals, fish, animal bones, hides, rotten soap, grease, tallow, offal, shell, food containers or wrappings, cans, bottles, jars, crockery, garbage, discarded furniture, cartons, boxes, crates, rags, discarded clothing, bedding, floor covering, wallpaper, sweepings, waste paper, newspapers or magazines, discarded appliances, rubbish, excrement, rot, construction debris including, but not limited to, lumber, bricks, block, plumbing or heating materials, roofing materials, concrete, cement, electrical materials or siding, yard debris or rubbish including, but not limited to, grass clippings, clippings from hedges or shrubs, or detached tree branches, industrial waste, unclean or nauseous fluids or gases, in any of the following locations:

a. Any public street, highway, lane, road, alley, public place, square, sidewalk or any lands within the boundaries of the Township owned by the Township or other municipal corporation.

b. Any river, lake, stream, or other body of water.

c. Any private place or premises where in the opinion of the Township superintendent or his agent the specified substances constitute a dangerous condition or are detrimental to the public health, safety, or welfare or offend aesthetic sensibilities or may cause sickness or attract flies, insects, rodents, or vermin. **THIS DOES NOT APPLY TO ITEMS THAT ARE ROUTINELY AND PROPERLY RECYCLED OR COMPOSTED SUCH AS, BUT NOT LIMITED TO, FOOD CONTAINERS, ORGANIC WASTE, FOOD WASTES, CANS, BOTTLES, JARS, CARTONS, BOXES, WASTE PAPER, NEWSPAPERS, MAGAZINES, CONSTRUCTION MATERIALS, GRASS CLIPPINGS, CLIPPINGS FROM HEDGES OR SHRUBS, OR DETACHED TREE BRANCES.**

OR ADD SUBSECTION (10) TO THE END OF 51-2:

(10) THIS DOES NOT APPLY TO ITEMS THAT ARE ROUTINELY AND PROPERLY RECYCLED OR COMPOSTED.

<https://ecode360.com/28777468#28777470>



Green Grants

Background

The Green Grant Program was launched in 2021, inspired by local interest in wetland protection, flooding prevention, outdoor education, climate action, native planting, and local action. Proposals are encouraged from schools, businesses, congregations, neighborhood organizations, clubs, and others.

Project Examples

- Native Plants, Shrubs, and Trees
- Buffer Zones/Natural Vegetative Buffers
- Rain Gardens/Bioswales
- Green Roofs/Living Walls
- Outdoor Classrooms or Gathering Spaces
- Natural Shorelines
- Energy-Related Projects
- Educational projects that involve birds, bats, trees, native plants, pollinators, art, signage, stormwater management, alternative energy, food, composting, gardens, nature, and more!

Proposals

Proposals are evaluated by the Green Grant Committee based on educational value, ecological impact, and clarity. The Committee recommends projects to the Environmental Commission for final approval. Please provide information requested on the Green Grant Request for Proposal Form.

Timetable

Any Time	Discuss ideas with your organization, business, association, school, and other.
Mar 15	Submit proposal Green Grants Team (c/o harvey@meridian.mi.us) Deadline may be extended if dollars remain uncommitted.
March	Green Grant Committee begins review.
Apr 1	Grantee completes Green Grant Agreement Form (and W-9 if not already provided) 50% payment in May. Balance processed after acceptable budgeted receipts are submitted.
Ongoing	Share pictures, questions, and progress reports. Presentations invited to Environmental Commission and/or Township Board.
Dec 30	Project completion deadline (unless extension granted)

More information

- <https://news.jrn.msu.edu/2023/10/meridian-townships-environmental-grants-impact-local-communities/>
- www.epa.gov/green-infrastructure/what-green-infrastructure
- www.greenschoolyards.org
- bit.ly/meridiangreenmap

If you have questions, please contact the Meridian Township Environmental Programs Coordinator at 517.853.4466 or Harvey@meridian.mi.us. The Environmental Commission may make changes to this project as needed.

Version: 11/14/23

Green Grant Request for Proposal

(Please use this form or create your own document)

1. Name of Organization: _____ Date: _____

2. Contact Information (email and address)

3. A brief description of project

4. Team leader(s) and team members

5. Outreach plan to inform the community

6. Expected materials and/or services needed

7. Project schedule (approximate)

8. Project budget (matching / in-kind contributions are encouraged)

9. Attachments: Please include a W-9 form (unless already provided). Other optional items might include an operation and/or maintenance plan, pictures, rough designs/concept drawings, etc. Please list attachments:

Proposal Evaluation: Proposals are evaluated and scored by the Green Grants Committee based upon their educational value, ecological impacts, and clarity. The Green Grants Committee recommends projects to the Environmental Commission for the final approval.

Timetable

- Any Time Discuss ideas with your organization, business, association, school, and the Green Grant Team. Learn more about “green grants” and possibilities for your landscapes.
- Mar 15 Submit proposal Green Grants Team (c/o harvey@meridian.mi.us) Deadline can be extended if proposal requests are less than budgeted dollars.
- March Green Grant Committee begins review.
- Apr 1 Grantee completes [Agreement Form/Contract](#) and W-9, 50% payment processed, balance on completion.
- Ongoing Awardees share status reports. Grantees submit final invoice when complete.
- Oct and Nov Presentations invited to Environmental Commission, Green Dialogue, and/or Township Board
- Dec 30 Project completion deadline (unless extension granted)

Meridian Township seeks to make this process as simple as possible. If you have questions or would like to discuss ideas, please contact LeRoy Harvey at 517.853.4466 or Harvey@meridian.mi.us or any member of the Green Grants Committee (John Sarver, LeRoy Harvey, Courtney Wisinski). The Environmental Commission may make changes to this project as needed.

2022 Environmental Commission Goals

Topic	Committee	Description
Green Grants	Green Grant Committee	<ul style="list-style-type: none"> ● Assist with Green Grants Program ● Select projects that will highlight green infrastructure opportunities
Wetland Education/Outreach	Wetland Education Committee	<ul style="list-style-type: none"> ● Create and Conduct a comprehensive Wetland Outreach Educational Campaign ● Collaborate with township, state, and community partners
Food, Food Waste, and Organics Recycling	Food-to-Compost Committee	<ul style="list-style-type: none"> ● Develop Food – Waste Opportunities ● Include food issues in Climate Action Plan ● Food procurement - best practices
Climate Action	Energy Team and Others	<ul style="list-style-type: none"> ● Review, Revise, and Pursue Climate Action Plans (add green infrastructure, food topics, etc.)
Recycling Events	Green Team	<ul style="list-style-type: none"> ● Conduct large events in the spring and fall ● Conduct events at the Farmers Market ● Consider other recycling opportunities and improvements.
Green Neighbors Network	GNN Committee	<ul style="list-style-type: none"> ● Continue to expand Green Neighbor Network ● Use GNN for wetland education, Solarize Meridian 2.0, and other initiatives
Student Action	Student Commissioners	<ul style="list-style-type: none"> ● Facilitate collaboration between schools & Environmental Commission
Ordinance Changes (Green Infrastructure)	Environmental Commission	<ul style="list-style-type: none"> ● Implement green infrastructure audit recommendations
Environmental Justice/ Equity	EJ Study Group	<ul style="list-style-type: none"> ● Create/Implement consistency in policy, protocol, and procedures
Other?		<ul style="list-style-type: none"> ● Hold Environmental Stewardship event to recognize volunteers and staff ● Identify a point person for each topic ● Discuss staff assignments/roles ● Discuss Commission roles ● Improve communication/collaboration

Ongoing

- Participate in regional collaboration
- Continue Study Groups on Environmental Justice and other topics
- Host Green Theme Presentations
- Review Wetland Permits
- Communicate with other Commissions, Boards, Trustees, and the Public
- Adapt and revise goals as needed
- Strive for consistency in policies and procedures



- Feb 17** **Energizing Youth**
- Mar 16** **Green Fashion Day**
- Apr 27** **Spring Recycling Day**
- May 18** **Planting a Native Meridian**
- Jun 8** **Eco-Tour & Compost Bin Sale**
- Jul 20** **Green Fair**
- Aug 24** **Rain Date**
- Sep 28** **Fall Recycling Day**

JC Penney Wing, Meridian Mall
Chippewa School, 4000 Okemos Rd.
Marketplace on the Green, 1995 Central Park Dr.