



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION
REGULAR MEETING
May 5, 2021 7 pm

ZOOM MEETING: ID: **867 3903 8953** Password: **5151**

1. CALL MEETING TO ORDER
2. APPROVAL OF THE AGENDA
3. APPROVAL OF THE MINUTES
4. PUBLIC REMARKS
5. NEW BUSINESS
 - A. Pathway Master Plan: Derek Perry
 - B. Wetland Preservation & Stewardship/Green Infrastructure Audit Update
 - C. New Student Applicant & "Alternates" Discussion: Annaka Saffron
 - D. Other
6. OLD BUSINESS
 - A. Green Infrastructure Grants for Schools
 - B. Tree City Update
 - C. Other
7. CHAIR'S REPORT
8. STAFF REPORT
9. Commission, Committee, Study Group and Trustee Reports (if applicable)
 - A. Transportation Commission
 - B. Planning Commission
 - C. MI Township Association (MTA) or MI Municipal League (MML)
 - D. Land Preservation Advisory Board
 - E. Green Team
 - F. Environmental Justice
 - G. Energy Team
 - H. Brownfield Redevelopment Authority
 - I. Board of Trustees
10. PUBLIC REMARKS
11. ADJOURNMENT



**MINUTES (DRAFT)
ENVIRONMENTAL COMMISSION**

April 7, 2021

View the meeting here: <https://meridianmi.new.swagit.com/videos/117285>

Attending: Commissioners: John Sarver, Ned Jackson, Rose Vadnais, Kendra Grasseschi, Anne Colby, Bill McConnell, Luca Wisinski, and Tom Frazier. Staff: LeRoy Harvey, Samantha Diehl, Stephen Gebes
Guests: Bernadette Osborn, Annaka Saffron, and Ben Holland

Green Theme: Green Infrastructure Planning and Policies in SE Michigan: Kelly Karll and Katherine Grantham with SE Michigan Council of Governments (SEMCOG) shared how they've integrated green infrastructure into regional plans and policies. Background: Kelly Karll is Manager of Environment and Infrastructure programs with 26 years of experience in municipal engineering, regulatory programs, consulting and regional planning. She led the development of the Water Resources Plan for Southeast Michigan and is currently leading the region's water asset management and infrastructure coordination activities. Katie Grantham is an Environmental Planner with the Southeast Michigan Council of Governments (SEMCOG). Katie works in SEMCOG's watershed planning and education, air quality and solid waste activities across the region. She helps lead the collaborative One Water Marketing campaign and an EPA green infrastructure grant program for local communities.

Karll and Grantham's slides are attached. Server asked about other Township examples that could provide count cadence guidance for Meridian. Clinton Township, Pittsfield Township, and Canton Township were mentioned. Karll mentioned that many green infrastructure projects are partnerships between County and local government. Jackson asked about porous pavement and Karll suggested that projects should consider maintenance. Porous pavement is probably best for use in parking lots. Grasseschi asked about successful efforts to bring leadership, the public, and developers on board with green infrastructure projects. Karll replied that leadership and collaboration are key, particularly with watershed groups and regional planning groups. Grantham mentioned success with the public educational program <https://semcog.org/mionewater> Karll invited future interaction.

Approval of the Agenda: Sarver added the citizen's climate commitment to the agenda. Jackson moved to approve the agenda and Vadnais seconded. Unanimously approved.

Approval of Minutes: Frazier suggested that we include unanimous approval for the resolutions appreciating both retiring commissioners. Tom – resolutions... unanimously approved both! Frazier moved to approve the minutes and Jackson seconded. Unanimously approved.

Welcome New Commissioners: Sarver welcomed Colby and Grasseschi. Sarver also welcomed Bernadette Osborn as a potential student member and Annaka Saffron. Harvey suggested that an "alternate" roll might be considered. Jackson suggested that the three students and another, Neha Kanneganti, might meet to discuss the Environmental Commission and their interests and experiences and potentially even create a Student Advisory Group.

Communication from Commissioner Grasseschi

Grasseschi informed commissioners that she has been actively involved with Land Preservation and Wetland Protection. She shared that she has professional expertise in Environmental and Social Justice, along with Diversity, Equity, and Inclusion. Grasseschi mentioned her interest in promoting our shared watershed. She is interested in wetland protection and environmental education. She is also interested in improving communications between commissions and staff.

Appointment to Land Preservation Advisory Board: Grasseschi expressed interest. Vadnais nominated Grasseschi which was seconded by Wisinski. Unanimously approved. Harvey agreed to draft a memo to Supervisor Styka.

Green Infrastructure Grants for Schools: Vadnais provided an update on grant applications. She reported that the subcommittee is recommending an outdoor classroom at Haslett Middle School and a nature trail and a greenhouse renovation at Montessori Radmoor. Jackson mentioned that having some additional dollars in reserve will be wise. Holland mentioned the potential for a money-saving redesign at Okemos High School. Frazier moved to approve the two projects and maintain a reserve fund (approx. \$3000 with the additional pledge from Granger) for either cost overruns or additional projects. Grasseschi seconded. Unanimously approved. Harvey will draft a grant acceptance letter and grant agreement.

Environmental Stewardship Awards: Harvey shared some background on the ESA. Grasseschi mentioned several people that came to mind for nominations (Sarah Allen, John Esser, and Jim Harding) and recommended involving businesses. Colby asked why we stopped giving the awards. Jackson informed us that Rick Brown formerly championed this effort. Frazier expressed support for moving forward. Vadnais moved to reinstate the ESAs in the Fall. Colby seconded. Unanimously approved.

Tree City Update: Vadnais mentioned that we do not have the \$2.00 per capita that is a requirement of tree city designation. However, there is interested in moving forward on a program to away raise awareness about tree planting. Jackson will check with Haslett beautification committee about interest in tree planting. Grasseschi asked about other spots that might be appropriate for planting, including the new development at Haslett and Marsh. Vadnais Also mentioned the importance of our green infrastructure code review in tree planting hand selection.

Citizen Climate Commitment: Sarver mentioned including energy audits in the recent citizens climate commitment. Grasseschi moved to support the citizen climate commitment and a resolution to our board of trustees. Seconded by Frazier. Unanimously approved.

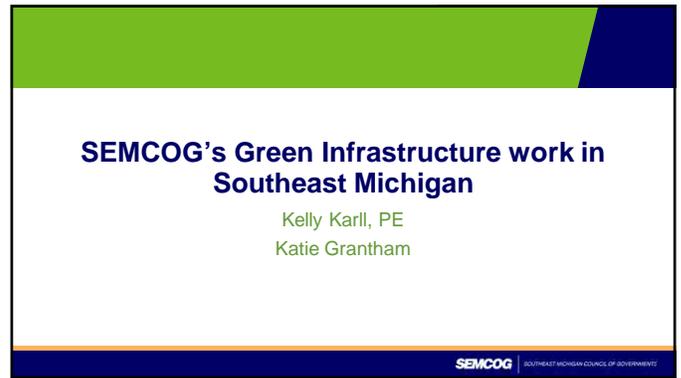
Staff Report: Harvey reports that several contractors have registered to apply environmentally friendly pavement sealants. Harvey will also share a recent survey of the green neighbors network. Currently there are over 30 neighborhoods represented. Harvey reports that there is some ongoing outreach related to Earth month (April). That may include a table at the Market on the Green on April 17. He is looking for pictures and ideas for use in social media. There is also interest in sure doing some potential green events at the mall over the summer culminating in a regional electronics recycling event on September 18th at Chippewa.

Commission, Committee, Study Group and Trustee Reports

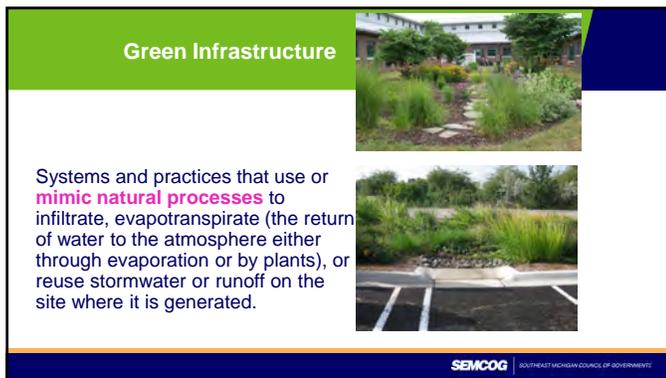
1. **MI Township Association (MTA):** Frazier has recently retired from MTA. He had been working on House Bills 4454 through 4461 (a rewrite of our solid waste laws to focus more on material management) for a long time and is happy to report that they will be going to the house floor soon and then then hopefully the Senate this year.
2. **Green Team:** Harvey reiterated an interest in pictures and ideas for social media outreach. Grasseschi mentioned that there are many environmentally inclined residents and experts in the field that we might as for pictures such as turtles and tree swallows.
3. **Energy Team:** Harvey reports that the solar system and lighting assessment are moving forward. There is also an energy benchmarking initiative and proposal that is moving forward.
4. **Brownfield Redevelopment Authority:** Jackson reports that there will be a disbursement of funds for the elevations project near Jolly and Jolly Oak near Applebee's
5. **Public & Additional Remarks:** Harvey invites people who may be interested in taking minutes for the Environmental Commission. Please contact him if that appeals.
6. **Adjournment:** Jackson moved to adjourn. Seconded by Frazier. Unanimously approved at 8:43 PM



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The Benefits of Green Infrastructure

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Environmental

- Energy
- Water quality
- Urban heat island
- Improve air quality
- Flood protection
- Drinking water source protection
- Replenish groundwater
- Protect or restore wildlife habitat
- Reduce sewer overflow events
- Restore impaired waters

- 85% reduction in annual runoff volume by retaining approximately first 1" rainfall
- 10 sf green roof removes ½ pound particulate per year
- Equivalent to capture from 10,000 vehicle miles traveled
- Approximately 800 million tons of carbon are stored in U.S. urban forests with a \$22 billion equivalent cost
- Planting trees remains one of the cheapest, most effective means of drawing excess CO2 from the atmosphere.

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Community

- Traffic calming
- Place making
- Crime reduction
- Provide pedestrian and bicycle access
- Enhance livability and urban green space
- Urban heat island mitigation
- Educational value
- Projects bring people together
- Inspire civic commitment

- Compared with areas that had little or no vegetation, buildings with high levels of greenery had 52% fewer crimes.
- Views of nature reduce the stress response
- Trees (along with other plants) absorb high-frequency noise which is the most distressing frequency range for humans (Miller, 1997).
- Hospital patients that see trees need less medication and have faster recovery times following surgery (Ulrich, 1985).

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Economics

- Reduce hard infrastructure construction costs
- Longer infrastructure life (improved subsurface drainage)
- Increase land values
- Encourage economic development
- Reduce energy consumption and costs
- Increase life cycle cost savings
- Job creation

University of Pennsylvania
Vacant land improvements increased surrounding housing values by as much as 30%
New tree plantings increased surrounding housing values by approximately 10%

Commercial Benefits
More frequent shopping
Longer shopping trips
Shoppers spend more for parking
Shoppers spend 12% more for goods

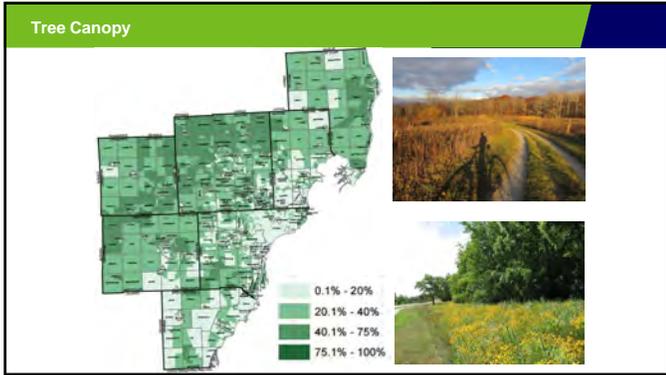
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Green Infrastructure Planning in Southeast Michigan

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Green Infrastructure Plans

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Water Resource Plan

- Preserve and restore natural areas
- Protect and restore aquatic habitats
- Coordinated stormwater management
- Flexible jurisdictions for stormwater management

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Parks and Recreation Plan

Regional Policies:

- Integrate community health
- Ensure Equitable Access
- Promote the economic value
- Support Conservation and Stewardship
- Raise awareness
- Foster Collaboration

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Green Infrastructure Initiatives

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EPA GLRI Green Infrastructure SubGrant Program

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TAP Grant Overview: Funding Partnership

SEMCOG
Southeast Michigan Council of Governments

MDOT
Michigan Department of Transportation

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Eligible TAP Projects

- Facilities for Pedestrians and Bicyclists
 - Non-motorized pathways/trails (on & off road facilities)
 - Pedestrian safety & accessibility projects
- **Transportation-related Environmental Mitigation**
 - **Green Infrastructure**
- Community Improvement & Streetscape Projects focus on safety elements
- Safe Routes to School (SRTS) Programs



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National Wetland Inventory Update



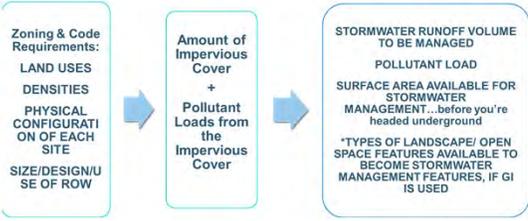
20

Tackling Barriers to Green Infrastructure



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Zoning & Green Infrastructure



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    graph LR
      A["Zoning & Code Requirements:  
LAND USES  
DENSITIES  
PHYSICAL CONFIGURATION OF EACH SITE  
SIZE/DESIGN/USE OF ROW"] --> B["Amount of Impervious Cover  
+  
Pollutant Loads from the Impervious Cover"]
      B --> C["STORMWATER RUNOFF VOLUME TO BE MANAGED  
POLLUTANT LOAD  
SURFACE AREA AVAILABLE FOR STORMWATER MANAGEMENT...before you're headed underground  
*TYPES OF LANDSCAPE/ OPEN SPACE FEATURES AVAILABLE TO BECOME STORMWATER MANAGEMENT FEATURES, IF GI IS USED"]
    
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Using the Green Infrastructure Audit Process

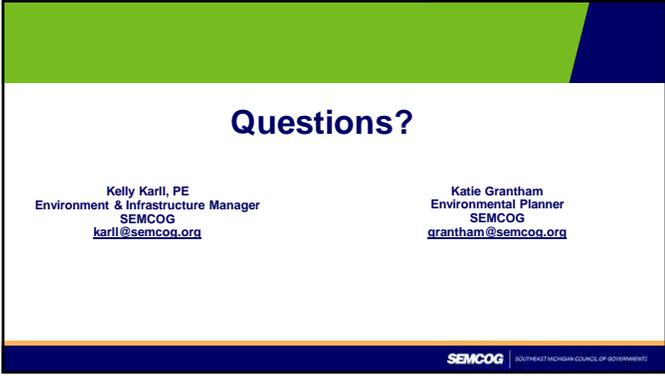
1. Identify regulations that prohibit or are ambiguous on the use of GI practices
2. Identify Regulations pertaining to parking, frontage and streetscapes that could be updated and amended to reduce impervious surfacing requirements
3. Identify conditional uses in zoning districts that are potential sources of stormwater pollution and determine if additional standards are in place to protect water quality

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Incorporating GI Examples

- Incorporating bioretention in general landscaping requirements.
- Using native or deep-rooted plants with ample soils in place of turfgrass.
- Reducing the total impervious area associated with parking requirements.
- Allowing the use of permeable surfacing in parking lots, driveways, fire protection areas and alleys. ■■

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Questions?

Kelly Karl, PE
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SEMCOG
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Katie Grantham
Environmental Planner
SEMCOG
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To: Environmental Commission Members
**From: Derek N. Perry, Deputy Township Manager
Director of Public Works & Engineering**
Date: 04.26.2021
Re: Pathway Master Plan Update

The Meridian Township Pathway system was started in 1974, and currently encompasses over 70 miles of pathway and 36 miles of paved shoulders. The program is funded by a dedicated pathway millage consistently approved by the voters of the Township. The current millage (0.3308) approved in 2016, annually provides approximately \$600,000 to maintain, leverage grant funding and construct new pathways throughout the community as identified in the Pathway Master Plan.

Our most recent update to the Pathway Master Plan was in 2016, and we aspire to have a formal review and affirmation every five (5) years to keep it current and reflective of the needs of the community. To accomplish this review, we present the existing plan to various Boards and Commissions to solicit input from the membership and the community at-large, and ultimately have the Township Board formally adopt the vetted Master Plan update.

The update has two parts, and includes a recommended 5-year priority plan identified by the Department of Public Works (DPW) and a list of additions recommended for inclusion in the revised plan. These recommendations originate from a variety of sources including the public.

The attached priority list provides the DPW team with a short-term annual working plan, and the recommended additions provide for future long-range forecasting of the plan as a whole.

For your reference, the first three years of the 2021-2025 Priority List are tied to grant funding obligations, but for years 2024-2025, the goal is to develop a plan that works to eliminate the historical gaps in the pathway network. As you review the Master Plan, the 2024-2025 gap projects (year-priority) have been identified on the map in *red* with a location arrow.

The ten (10) recommended new routes are identified on the map in *yellow* and have a corresponding number for identification. These include 1. Green Road Extension, 2. Carlton Road connector, 3. Towner Road connector, 4. Hillbrook Park connector, 5. Consumers Energy – Haslett to Grand River connector, 6. Consumers Energy - Grand River to Legg Park connector, 7. Sturk Land Preserve connector, 8. Delta Dental Middle School connector, 9. Lodges Loop, and 10. Raby connector.

We look forward to your review, potential additions and comments.

2021-2025 Pathway Master Plan Priority List

2021

Priority	Project Description	Section	Street	Side	From	To
1	MSU- LL (Ph 1)	20	Trail along Red Cedar River	North	Hagadorn	Grand River/Park Lake
2	RRFB	12, 15	At Haslett west of Van Atta, and Central Park Drive by new Farmer's Market	Both		
3	MSU- LL (Ph 2)	16	Trail within Campus Hills apt & Rysberg preserve	N/A	Grand River	Okemos
4	MSU- LL (Ph 2b)	16	Okemos	N/A	Gaylord C Smith	Old Interurban
5	MSU- LL (Ph 3 Connector)	10	Shaw Street	East side south of Lake Dr, west side north of Lake Dr.	Haslett	Lake Lansing Road
6	Misc. pathway Repairs	Township - wide				

2022

Priority	Project Description	Section	Street	Side	From	To
1	MSU- LL (Ph 1)	20	Trail along Red Cedar River	North	Hagadorn	Grand River/Park Lake
2	East Lansing Norther Tier Connector	6	Towar	West	Lake Lansing Rd.	East Lansing City limits
3	MSU- LL (Ph 3)	1, 2, 11	Along CE ROW	Northwestern side of CNRR	Marsh/Interurban	County Parks/Green Road
4	Misc. pathway Repairs	Township - wide				

2023

Priority	Project Description	Section	Street	Side	From	To
1	MSU- LL (Ph 3)	1, 2, 11	Along CE ROW	Northwestern side of CNRR	Marsh/Interurban	County Parks /Green Road
2	Misc. pathway Repairs	Township - wide				

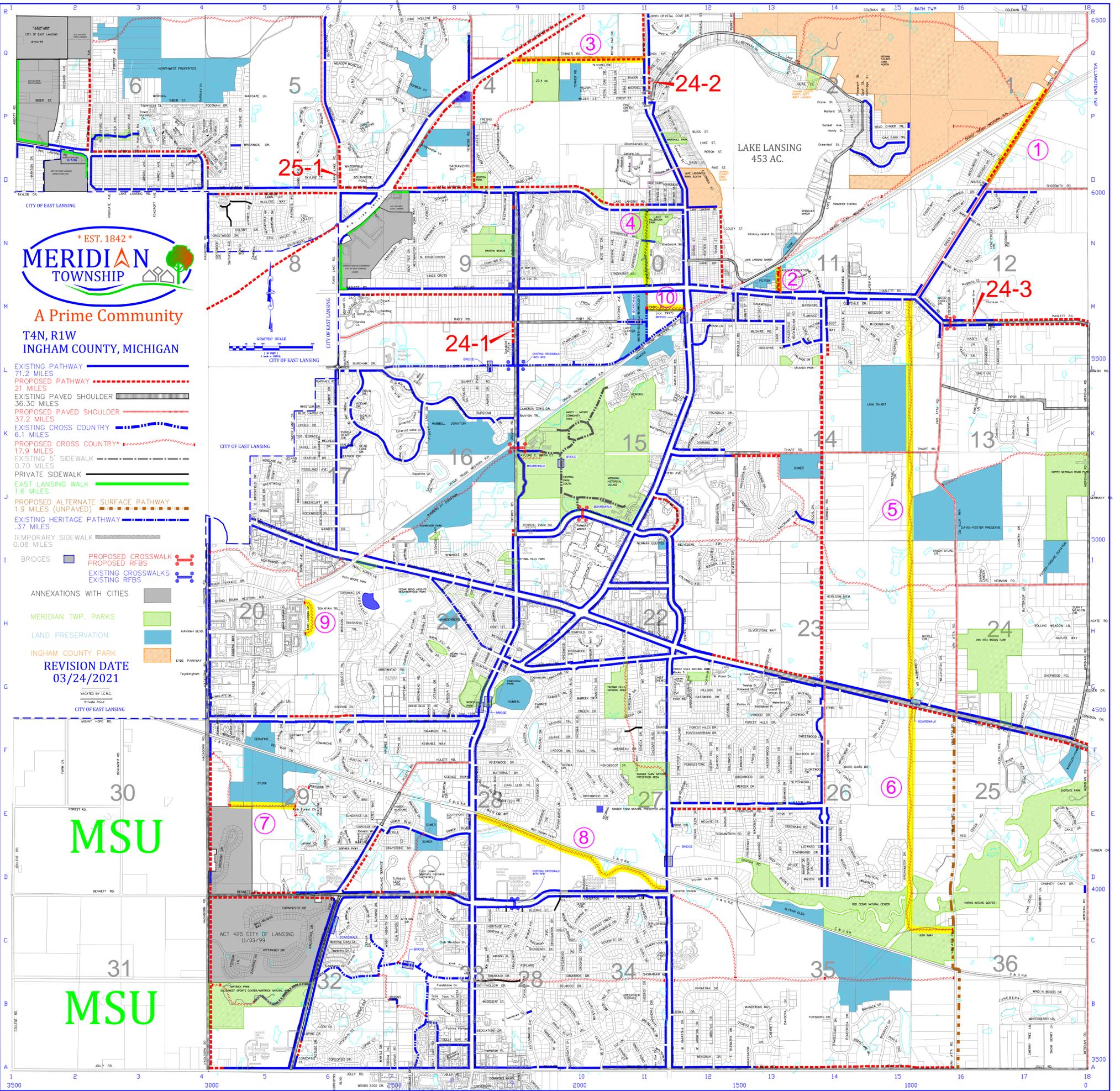
2024

Priority	Project Description	Section	Street	Side	From	To
1	System Gap	9	Okemos	West	Raby Road	Existing pathway
2	System Gap	3	Marsh	East	W Reynolds	South of Mack
3	System Gap	12	Haslett	North	East of Crooked Creek	West of Copper Creek Way
4	Misc. pathway Repairs	Township - wide				

2025

Priority	Project Description	Section	Street	Side	From	To
1	System Gap	5	Park Lake	East	Lake Lansing Rd	Pine Hollow
2	Misc. pathway Repairs	Township - wide				

PATHWAY MASTER PLAN



- EXISTING PATHWAY 71.2 MILES
 - PROPOSED PATHWAY 21 MILES
 - EXISTING PAVED SHOULDER 36.30 MILES
 - PROPOSED PAVED SHOULDER 37.2 MILES
 - EXISTING CROSS COUNTRY 6.1 MILES
 - PROPOSED CROSS COUNTRY* 17.9 MILES
 - EXISTING 5' SIDEWALK 0.70 MILES
 - PRIVATE SIDEWALK
 - EAST LANSING WALK 1.6 MILES
 - PROPOSED ALTERNATE SURFACE PATHWAY 1.9 MILES (UNPAVED)
 - EXISTING HERITAGE PATHWAY .37 MILES
 - TEMPORARY SIDEWALK 0.08 MILES
- BRIDGES
 - PROPOSED CROSSWALK
 - PROPOSED RBFS
 - EXISTING CROSSWALKS
 - EXISTING RBFS
- ANNEXATIONS WITH CITIES
 - MERIDIAN TWP. PARKS
 - LAND PRESERVATION
 - INGHAM COUNTY PARK
- REVISION DATE**
03/24/2021
- VACATED BY I.C.R.L.
Private Road
CITY OF EAST LANSING

ABBOTT RD. O-1	BONANZA DR. A-15	COLUMBUS AVE. I-12	EAST REYNOLDS RD. O-11	HAGADORN RD. A-4	JACOB MEADOWS DR. E-18	MACK AVE. O-11	OKALDE DR. O-16	RABY RD. M-8	TAYLOR CT. O-11	WESTMINSTER WAY N-8
ACADEMIC WAY M-14	BONITA CT. N-4	COMMONS PKWY. ALDN. TWP. F-11	EAST SLEEPY HOLLOW LN. N-9	HALLDALE RD. A-4	JANICE LEE DR. E-18	MACKINAC RD. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	TAYLOR CT. O-11	WHISPERWOOD DR. N-8
ACQUINA DR. C-7	BRAKENDRIDGE DR. F-17	CONARD DR. F-8	EAST SUNNOWN DR. F-5	HAMILTON RD. L-13	JENNIFER DR. E-18	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	TEAKWOOD DR. A-12	WHISTLER DR. N-17
ALDERWOOD DR. F-13	BREKAMATER DR. D-15	CONRAD DR. F-8	EASTWOOD DR. F-12	HAMPTON DR. H-4	JESSALEE CIR. K-8	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	TERI TERRACE DR. F-8	WHITE ASH LN. K-6
ALGOMA DR. B-11	BREKENDRIDGE DR. C-10	CONRAD DR. F-8	EDSON ST. M-12	HANNAN BLVD. H-4	JO BONI DR. K-8	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
ALLEGONWAY WAY N-13	BREKENDRIDGE DR. B-11	COOPER HILL DR. F-6	ELK LN. B-10	HARDY AVE. O-3	JO PASS. A-1	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
AMBASSADOR DR. A-13	BREKENDRIDGE DR. B-11	COPPERHILL DR. F-6	ELMWOOD DR. F-12	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
AMBER DR. K-6	BREKENDRIDGE DR. B-11	CORAL WAY. A-6	EMERALD LAKE DR. K-7	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
ANACOSTIA DR. F-7	BREKENDRIDGE DR. B-11	CORPUS CHRISTI DR. A-6	EMERALD LAKE DR. K-7	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
APPLE VALLEY DR. A-11	BREKENDRIDGE DR. B-11	CORNELL DR. M-14	ENDENHILL WAY. P-3	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
ARAPAHO TRAIL. A-11	BREKENDRIDGE DR. B-11	COTTAGE DR. P-14	ESPERANZA CT. D-3	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
ARROWHEAD DR. G-5, H-9	BREKENDRIDGE DR. B-11	COUNTRY NEW DR. R-2	ETHEL ST. H-11	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
ARROWHEAD DR. G-5, H-9	BREKENDRIDGE DR. B-11	COUNTRY NEW DR. R-2	ETHEL ST. H-11	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
ASHLAND AVE. C-9	BREKENDRIDGE DR. B-11	COVEY CR. N-8	EYE PARKWAY. H-4	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
ASTLEB DR. A-6	BREKENDRIDGE DR. B-11	COVEY CR. N-8	EYE PARKWAY. H-4	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
ATHERTON WAY. B-10	BREKENDRIDGE DR. B-11	COVEY CR. N-8	EYE PARKWAY. H-4	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
AUTUMNWOOD LN. B-10	BREKENDRIDGE DR. B-11	COVEY CR. N-8	EYE PARKWAY. H-4	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14
AZTEC WAY. E-7	BREKENDRIDGE DR. B-11	COVEY CR. N-8	EYE PARKWAY. H-4	JOLLY OAK DR. A-1	JONHILL LN. C-11	MADISON AVE. K-12	OKALDE DR. O-16	RAINBOW CT. A-11	THAMES DR. C-9	WHITE OAK DR. F-14

NOTE: PRIVATE ROADS * HAVE AN ASTERISK

Wetland & Green Infrastructure Discussion

<https://ecode360.com/28776358>

22-123 Duties of the environmental commission.

[Code 1974, § 105-16; Ord. No. 2002-07, 8-20-2002; Ord. No. 2011-04, 3-15-2011]

The environmental commission created pursuant to Chapter 2, Article VI, Division 3, shall perform the following duties with regard to this article:

(1)

Advise the Township Board, Planning Commission, and Director of Community Planning and Development, as necessary, on wetland use permits, appeals of wetland use permits, and mitigation plans.

(2)

Serve in an advisory role in setting policy guidelines on wetland issues in the Township.

(3)

Identify conflicts and propose solutions to resolve conflicts regarding wetland protection by present Township ordinances, Township operating procedures, and Township activities.

(4)

Identify and propose solutions to problems associated with wetland management.

(5)

Provide recommendations to the Director of Community Planning and Development on map administration.

(6)

Assist landowners who are interested in the voluntary protection of wetlands.

(7)

Promote wetland education at all levels. Develop education programs for the public and for Township schools. The program should promote the values of wetlands and awareness of the hazards and threats to wetlands. The program should be particularly targeted to landowners with wetlands and emphasize how best to protect wetland values on their property.

(8)

Coordinate a voluntary wetland stewardship program. Develop an adopt-a-wetland program for interested citizens to participate more directly in preservation of specific wetlands.

Submitter DB ID 13549
IP Address 2601:405:4a00:76b0:445c:2cd0:d9e:7c37
Submission Recorded On 04/12/2021 6:23 PM
Time to Take the Survey 9 minutes, 33 secs.

Page 1



Public Service Application Form

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

***Special conditions restrict eligibility for appointment**

1.

Environmental Commission

2. Occupation:

student

3. Indicate areas not included above which may warrant special attention or study that are of interest to you:

Not answered

4. Describe education, experience or training which will assist you if appointed:

see resume

5. Contact Information:

Name: Annaka Saffron

Occupation: student

Place of Employment: none

Home Address: 4210 Aztec Way, Okemos

Phone (days): 517-930-6848

Phone (evenings): 517-930-6848

Date: 4/12/21

Email: annakasaffron@gmail.com

6. Attach Resume

Resume is attached [resume.docx](#)

7. Attach Cover Letter

Cover Letter is attached [cover letter.docx](#)

Annaka Saffron
(517) 930-6848
annakasaffron@gmail.com

Dear Environmental Committee,

I am very interested in a student position on the Meridian Township Environmental Committee and to learn how the committee reviews information to make recommendations on environmental problems. I would like to help reduce Meridian Township's ecological footprint and improve community health by using my skills to raise awareness of pollution, research solutions, promote conservation, increase energy efficiency, and sustainably use resources in our area. The topics discussed in the April 7, 2021 meeting, such as natural resource use, pollution from cleaning solutions, and pathogen release like *E.coli*, among other recent discoveries about compounds linked with cancer, brain damage, and inflammation connect with my mission of improving our overall well being.

I believe I am well suited to the position based on my experiences, academic background, and interests. As a high school junior, I have two years of experience volunteering for miRcore, which is a nonprofit research organization with the goal of treating individuals based on their unique genetic profiles and environmental circumstances. Through this organization, I have been working with other high school students around the U.S. on researching microRNA interactions, public education, and fundraising for microgrants to university researchers. I am the president and founder of the Genes in Diseases and Symptoms club at OHS, which competes nationally and submits research abstracts and presentations on diseases; this year's disease of interest is Covid-19, while last year's was Opioid addiction. I also have experience working as a volunteer for the Ingham County Medical Care facility nursing home in Okemos. For three years I have been a member of the Okemos High School Debate Club, which competes nationally, most recently in the Fed Challenge presenting our team's research to economists at the Federal Reserve Bank of Chicago. This year I am also the Junior representative for the AP Scholarship Club. My other skills include JavaScript, Linux, R programming, graphic design, Excel, and social networking platforms. My hobbies include walking our dog and bike riding on the Meridian Township trails, visiting national and all other parks, botanical gardens, and growing house plants.

Thank you for considering me for a position on this committee. I look forward to speaking with you in greater detail about my experiences and project ideas for this position and how I can contribute to the future success of community projects in the township.

Sincerely,
Annaka Saffron

RESUME:

EXPERIENCE

- Girls in engineering camp at MSU
 - Wetland protection infrastructure
 - Civil engineering, specifically roads and road material
- MST at MSU: Microbiology Bacteria engineering
 - Methylotroph but also metabolizes lanthanides to recycle from tech waste
 - Plasmid insertion
- MiRcore (nonprofit)
 - In education committee -- making materials to help other GIDAS clubs, people starting MVP, and MVP research help (also presentations on bioethics)
 - Founded and president for GIDAS school club, which is centered around education on gene expression and advanced biology & fundraising for microgrants for research on COVID
 - MiRcore volunteer program: research for a conference.
 - Education for middle schoolers on relationships between cancers (MiRcore biology and cancer workshop)
 - Won prizes two years ago in Genes and Health Competition, which is national
- 3rd place at Michigan debate tournament ("States")
- Presented in team for Fed Challenge (no place, but learned about inflation and how to present better)
- Volunteered at nursing home-- experience working with people
- National parks and international museums-- been to many (at least 10 national parks)
- Documentaries like Seaspiracy, Kiss the Ground, and Cowspiracy in free time.
- Violist at Martin Luther King Day Orchestra: work experience
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EDUCATION/TRAINING

- 4.0 in Calculus 3 (MSU, Summer 2020)
- 4.0 in Physics for Scientists for Engineers (MSU, Fall 2020 & Spring 2021)
- 5's in AP Chemistry, BC Calculus, and World History,
- 4 in AP Macroeconomics and French
- Upcoming (May 2021) AP tests in Literature, Language, US History, Computer Science A, and Microeconomics.
- Upcoming summer camp in Catalysis Green Chemistry and Organic Bootcamp at U of M.
- Upcoming Fall enrollment: AP Environmental Science to acquire formal training as to how to be a better steward of the land, resources, and ecosystem we rely on.

TRANSCRIPT:

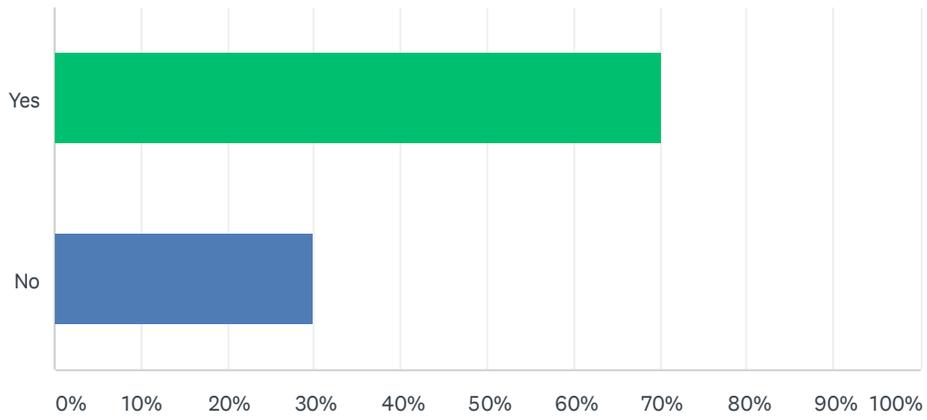
Attached below

SKILLS

- Basic java script
- Excel
- R programming (basic)
- French
- NCBI, GEO2R, STRING.db, Pharmgkb, KEGG pathways
- PCR, gel electrophoresis, plasmid transformation
- Can advertise on social media (instagram)
- Graphic design through clip studio paint and sketchbook Autodesk.

Q1 Have you been able to share environmental information with your neighbors?

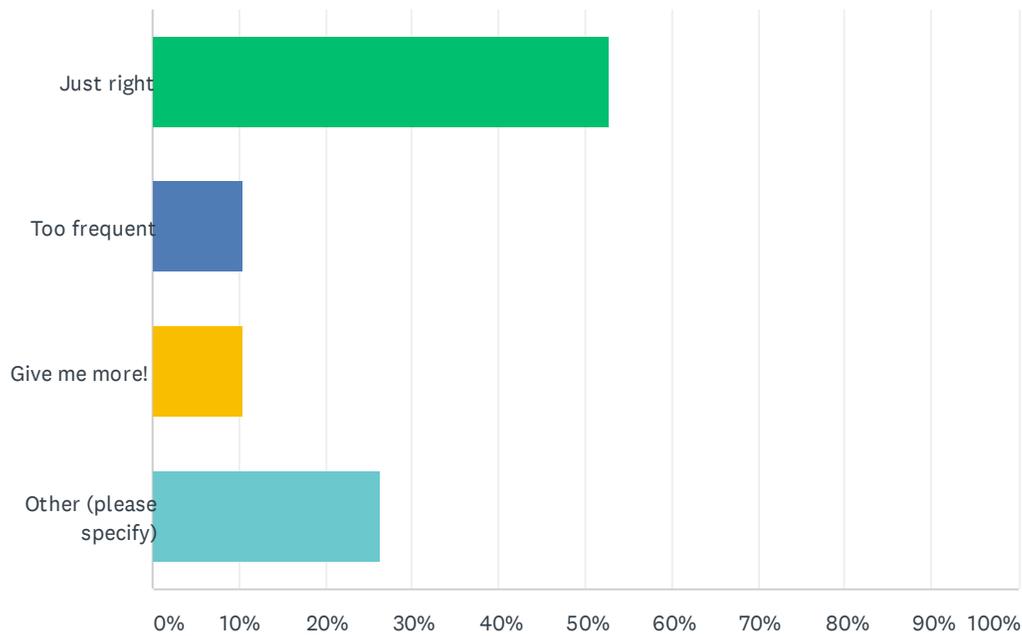
Answered: 20 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	70.00%	14
No	30.00%	6
TOTAL		20

Q2 How do you feel about the frequency of information distributed through the Green Neighbors Network?

Answered: 19 Skipped: 1

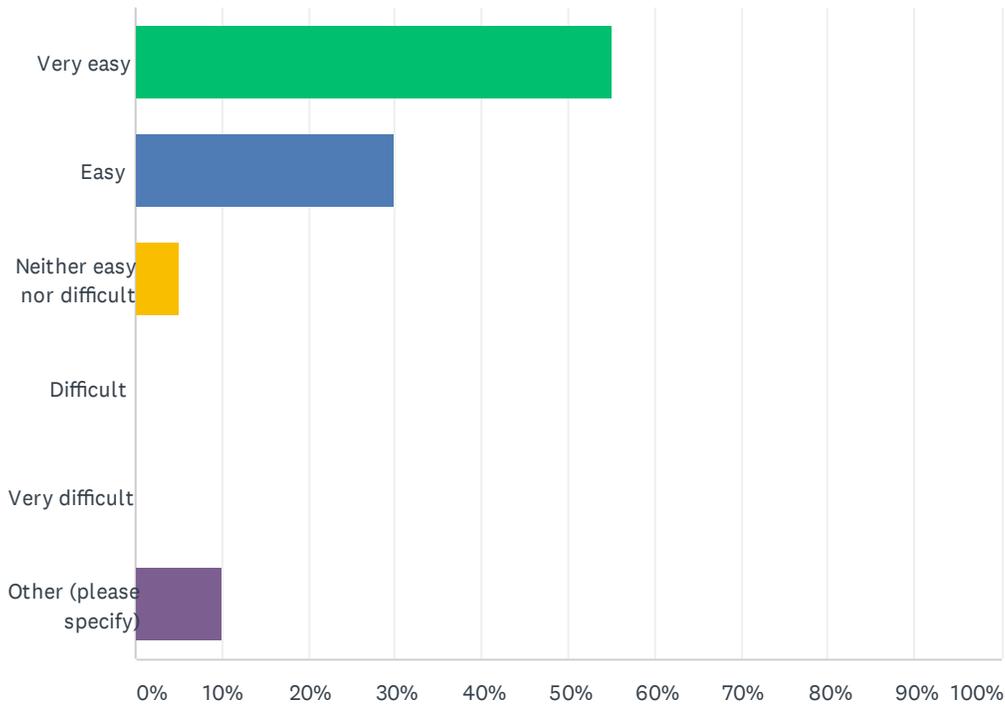


ANSWER CHOICES	RESPONSES
Just right	52.63% 10
Too frequent	10.53% 2
Give me more!	10.53% 2
Other (please specify)	26.32% 5
TOTAL	19

#	OTHER (PLEASE SPECIFY)	DATE
1	Just joined	3/30/2021 8:27 PM
2	Mostly you need to time things so that my schedule if free and I can focus on getting things out.	3/30/2021 10:31 AM
3	Just starting on this so unsure	3/30/2021 9:31 AM
4	Little more	3/25/2021 8:33 PM
5	I've only received about 4-5 emails	3/25/2021 3:09 PM

Q3 How would you describe your ability to open, read, and share information?

Answered: 20 Skipped: 0



ANSWER CHOICES	RESPONSES	
Very easy	55.00%	11
Easy	30.00%	6
Neither easy nor difficult	5.00%	1
Difficult	0.00%	0
Very difficult	0.00%	0
Other (please specify)	10.00%	2
TOTAL		20

#	OTHER (PLEASE SPECIFY)	DATE
1	Some articles are difficult to open using mobile device	3/30/2021 10:14 AM
2	I don't think I've received anything yet :/	3/26/2021 10:51 AM

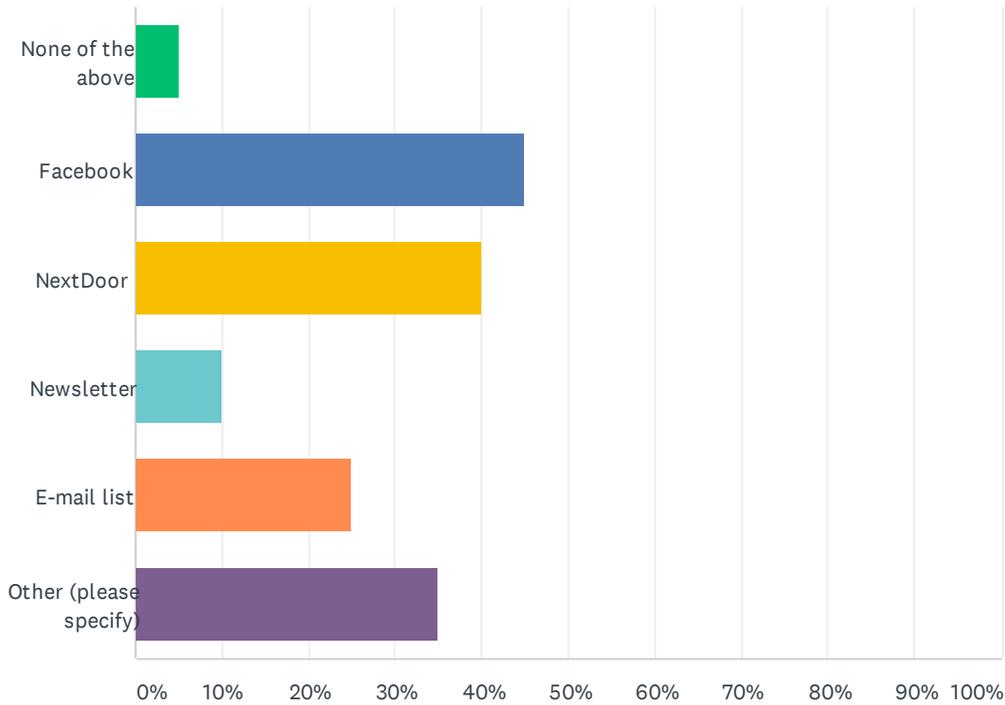
Q4 If yes, what information has been most useful?

Answered: 15 Skipped: 5

#	RESPONSES	DATE
1	events	4/1/2021 7:18 AM
2	emails	3/31/2021 9:41 AM
3	identifying and sharing environmental events in our community	3/31/2021 1:55 AM
4	I haven't shared any information.	3/30/2021 1:37 PM
5	Very informative	3/30/2021 12:23 PM
6	I am looking for 1) recycling information, 2) events to publish in our newsletter	3/30/2021 10:31 AM
7	just starting	3/30/2021 9:31 AM
8	It would be great to learn about resources and services for increasing conservaton & sustainability in our area	3/26/2021 10:51 AM
9	I think concise one page infographics are most helpful.	3/26/2021 6:57 AM
10	Guidance on identifying and removing invasive species	3/25/2021 9:01 PM
11	recycling, solar energy	3/25/2021 8:33 PM
12	not a yes/no question	3/25/2021 3:09 PM
13	How & where to recycle	3/25/2021 12:24 PM
14	Emails	3/25/2021 12:21 PM
15	What others are doing to reduce fossil fuel use	3/25/2021 10:22 AM

Q5 Where or how do you share information?

Answered: 20 Skipped: 0



ANSWER CHOICES	RESPONSES
None of the above	5.00% 1
Facebook	45.00% 9
NextDoor	40.00% 8
Newsletter	10.00% 2
E-mail list	25.00% 5
Other (please specify)	35.00% 7
Total Respondents: 20	

#	OTHER (PLEASE SPECIFY)	DATE
1	face-to-face	4/1/2021 7:18 AM
2	Conversations and presentations	3/30/2021 10:14 AM
3	Chats with neighbors	3/30/2021 9:31 AM
4	Repost to appropriate groups on FB. (I dislike NextDoor...sometimes seems like gossip level info source...lacks gravitas :)	3/26/2021 6:57 AM
5	With neighbors, we talk in person or by phone	3/25/2021 9:01 PM
6	Face-to-face conversations	3/25/2021 1:16 PM
7	Conversation	3/25/2021 11:49 AM

Q6 What could be improved?

Answered: 13 Skipped: 7

#	RESPONSES	DATE
1	no suggestions	4/1/2021 7:18 AM
2	have a quarterly green event at the township site	3/31/2021 9:41 AM
3	N/A	3/30/2021 1:37 PM
4	Nothing	3/30/2021 12:23 PM
5	My schedule. The amount of items that are available and where I could spread them is a full-time position. It's my time schedule.	3/30/2021 10:31 AM
6	Just starting	3/30/2021 9:31 AM
7	It would be great to learn about resources and services for increasing conservaton & sustainability in our area. Actionable resources would be great.	3/26/2021 10:51 AM
8	Maybe knowing the pattern of information...what to expect. For example, GNN will attempt to forward/post one Meridian-relevant green article per week.	3/26/2021 6:57 AM
9	Keep up the great work, we are grateful for the knowledge share and connection	3/25/2021 9:01 PM
10	Pretty good so far	3/25/2021 8:33 PM
11	No suggestions	3/25/2021 1:16 PM
12	Not sure	3/25/2021 12:24 PM
13	No suggestions	3/25/2021 10:22 AM

Q7 Are there specific topics you'd like more information about?

Answered: 13 Skipped: 7

#	RESPONSES	DATE
1	rain gardens	4/1/2021 7:18 AM
2	stae of Mi waters	3/31/2021 9:41 AM
3	No	3/30/2021 1:37 PM
4	nothing comes to mind	3/30/2021 12:23 PM
5	recycling event; when, where, what.	3/30/2021 10:31 AM
6	Sustainable energy, water, & how to participate in conservation for apartment/condo complexes & individuals	3/26/2021 10:51 AM
7	Maybe someone should be dedicated weekly Recycle poster person as that info changes so quickly...maybe Twp people can come to rely on GNN neighbor-in-the-know on that topic...or at least person who reliably forwards something relevant to Twp and recycling.	3/26/2021 6:57 AM
8	Native plants, gardening	3/25/2021 8:33 PM
9	Thought I'd be getting more generic info: gardening, watershed, flora/fauna. I've mostly received info on solar panels - interesting, but doesn't apply to me.	3/25/2021 3:09 PM
10	No	3/25/2021 1:16 PM
11	More detailed recycling info	3/25/2021 12:24 PM
12	Might be good to amplify alternatives to lawns such as native plant, insect, rain gardens	3/25/2021 11:49 AM
13	Work with homeowners association to encouarge solar panelinstallation	3/25/2021 10:22 AM

Q8 What other questions or suggestions do you have?

Answered: 12 Skipped: 8

#	RESPONSES	DATE
1	none	4/1/2021 7:18 AM
2	offer volunteer opportuntiiies on a central list at the MT website	3/31/2021 9:41 AM
3	I am sorry that I have little to help with this survey as I have not been part of the GNN for very long and I have not taken advantage of it either in sharing or participating with others	3/30/2021 8:27 PM
4	None	3/30/2021 1:37 PM
5	None	3/30/2021 12:23 PM
6	none	3/30/2021 9:31 AM
7	How can I find/connect with others in my condo complex/ area?	3/26/2021 10:51 AM
8	Sorry my attendance is erratic. I don't attend when I have conflicts. Other suggestion would be join with Emma's group and maybe public safety to challenge public to a complete a tour or program, self-monitored/reported, to winn a Meridian GNN recycable bag. Maybe advertise all of the Meridian progams on it...Conservation group, etc. Then we would see them popping up and other GNN's would also help build community on that small level. Fun and important work! :)	3/26/2021 6:57 AM
9	None	3/25/2021 8:33 PM
10	None	3/25/2021 1:16 PM
11	None	3/25/2021 12:24 PM
12	None	3/25/2021 10:22 AM