



**Environmental Commission
Meeting Packet
February 6, 2019**

Contents

Agenda: February 6 2019 2

Environmental Commission Meeting Minutes: January 9, 2018 (draft) 3

Wetland Ordinance Review Discussion Points..... 5

2019 Goals (draft) 6

STAFF UPDATE..... 6

2018 Annual Report (draft)..... 7

GREEN THEME SCHEDULE AND TOPICS 9

ENVIRONMENTAL COMMISSION ROSTER (2019) 10

Agenda: February 6 2019

Town Hall Meeting Room – 5151 Marsh Rd. Okemos

1. CALL MEETING TO ORDER AT 7:00 PM
2. GREEN THEME:
Karim Chatti Ph.D. Professor, Department of Civil & Environmental Engineering
Director, UTC Center for Highway Pavement Preservation <http://www.chpp.egr.msu.edu>
Sustainable Pavement: overview of pavement preservation and how a sound approach will lead to a more sustainable and environmentally friendly roads.

Brief video on pavement preservation: <https://youtu.be/SDObEGaS8dU>
3. WELCOME AND INTRODUCTIONS
4. APPROVAL OF THE AGENDA
5. APPROVAL OF THE MINUTES
6. PUBLIC REMARKS
7. NEW BUSINESS
 - A. Welcome New Commissioner
 - B. Other
8. OLD BUSINESS
 - A. Wetland Ordinance
 - B. Wetland Bank Discussion
 - C. Other
9. REPORTS & UPDATES
 - A. CHAIR - Bill

 - B. COMMISSION LIAISON, COMMITTEE AND STUDY GROUP REPORTS
 - A. Planning - David
 - B. Land Preservation - Jim
 - C. Energy - John
 - D. Brownfield Redevelopment Authority - Ned
 - E. Green Team (Citizens' Recycling Advisory Committee) - Aparna
 - F. Other

 - C. STAFF -

 - D. OTHERS?
10. OTHER
11. PUBLIC REMARKS
12. ADJOURN

Environmental Commission Meeting Minutes: January 9, 2018 (draft)

GREEN THEME: Ingham County Groundwater Survey and Important Issues for Well Head Protection

Garry Rowe presented an update on groundwater issues in our region. An audio recording and powerpoint of his presentation is available and will be put on Enviro Commission webpage.

REGULAR MEETING

Attending: Ned Jackson, Jim Kielbaso, Aparna Krishnamurthy, Kirk Lapham, Susan Masten, Bill McConnell, John Sarver, LeRoy Harvey (staff), and Peter Menser (staff)

Guests: David Premoe (Planning Commission), Tom Cary (interested in Env. Commission), Wetland Consultants: Stephen Voice & Gary Marx, Bryana Guevara, Jeff Keyes (KEBS), Chuck Holman(DTN), Reps/owner/builder/property owner from wetland projects, Sue Andrews and Valerie Lafferty (PFAS research project), Env. Commission Interest/Applicants: Tom Cary, Linda Burghardt, Erin Schroeder (see applications in "other documents" folder on the Environmental Commission page on the Meridian Website here)

WETLAND PERMITS: Details including the applications, delineation report, wetland consultant reports, and staff reports can be found on-line here.

Chimney Oaks (culvert/driveway) W-18-04 This project includes 1.5/1 mitigation (create 1.5x the amount of wetland that is being filled). This project will include up to 5 years of monitoring and signage. There were questions about the shape of the culvert (elliptical, which facilitates movement of animals under roadway), the economic justification in the application, the impact/improvements to species diversity, and the bonding of mitigation (should restoration fail or need correction).

Motion passed: (prepared by Menser, read by Jackson, seconded by Masten) to recommend approval of Wetland Use Permit #18-04 to install a culvert within the Povey Drain subject to the conditions proposed by the Township's wetland consultant in the report dated January 4, 2019.

Newton Park WUP-18-03 This project is a mixed use planned unit development (mupud). Masten and McConnell visited the site yesterday. A public hearing will be held at the Township Board (who will make the final decision on the MU-PUD. There was a two-step review to delineate. Wetland A and B are both determined to be "essential" and are regulated. There has been back and forth between the developer and the consultants to help preserve the regulated wetland. The property is currently zoned C2. The MUPUD, which must be approved by the Board allows mix of commercial and residential. There were questions about a wildlife corridor on the site (illustrated in the Greenspace Plan), conditions of approval – buffer size, plantings in the buffer, the application form (Army Corp of Engineers is required), the permeable pavement, the effect on impervious surface, public benefit, site/landscaping maintenance and others. Because the project is not fully designed, one condition is to have Meridian's wetland consultant review the final plan. Menser confirmed.

MOTION Approved (prepared by Menser, offered Masten, seconded by Kielbaso) by to recommend approval of Wetland Use Permit #18-03 to discharge storm water into regulated wetlands subject to the conditions proposed by the Township's wetland consultant in the report dated January 3, 2019.

Wetland Ordinance Revisions (tabled)

Goals for 2019(tabled)

Environmental Commission Applications (tabled)

RELATED UPDATES & ANNOUNCEMENTS

Planning – David Premoe mentions that medical marijuana will be one the larger issues.

Land Preservation – James Kielbaso states that two properties are being considered. 57 deer were harvested (smaller number than last year). There is interest in a joint meeting to discuss mitigation on land preservation (possibly with Ingham Co. Drain Commissioner, DEQ, Fish and Wildlife Service). Krishnamurthy asked about Chronic Wasting Disease.

Energy – John Sarver mentioned progress on the a plan for 100% solar, the annual report on the Climate Action Plan. McConnell asked about presenting this at the Joint Commission next week.

Brownfield Redevelopment Authority – Ned Jackson/Peter Menser mentioned two big projects: Downtown Okemos Mixed Use Project which is coming to the Board and Planning Commission in early February. There is clean up related dry cleaning chemicals and old gas station contamination. There is also a project on Jolly and Jolly Oak project at the Elevation where old petroleum/ construction waste was stored.

Green Team – Krishnamurthy mentioned educational efforts related to reducing non-flushable materials in local schools, the upcoming recycling event in April, and interviews with janitors related to compost/litter.

Staff – Harvey referred to materials in the packet and also mentioned recruitment of commissioners. The Environmental Commission has 5 applicants for 1 regular position. There is also a student position open. See the “other documents” section on. Wetland bank grants and procedures are a

Liaison Appointments: McConnell suggests retaining our current roster.

Joint Board Meeting (January 15 @ 6pm in Town Hall): McConnell encourages people to attend. RSVP suggested by not required. It’s a good opportunity to network. LeRoy will work with Bill to prepare a report for the EC/Green Team/Energy Team.

Officer Selection: McConnell was reappointed as Chair and Jackson as Vice Chair (Motion by Kielbaso Seconded by Jackson) Approved.

PUBLIC REMARKS: Erin Schroeder and Linda Burghardt introduced themselves. Both are potential Environmental Commissioners or associates (Jackson suggests that interested people are welcome to attend future meetings whether or not they are nominated).

Motion to Adjourn at 9:22pm by Masten. Seconded by Sarver. Motion Passed.

Wetland Ordinance Review Discussion Points

See latest draft here: <http://www.meridian.mi.us/Home/ShowDocument?id=15368>

Wetland Banking Update

Mike Pennington, with the Water Resources Division at DEQ, recently informed us that local municipalities can establish a local wetland bank. Here is a link to DEQ's banking page. https://www.michigan.gov/deq/0,4561,7-135-3313_3687-10426--,00.html. He writes: The document entitled "Process for developing mitigation banks in Michigan factsheet" provides a pretty good overview of the steps required to establish a bank site. Our community would have to identify one or more sites that total 10 acres (once were wetlands to be restored). To help determine sites, there's an on-line wetlands map viewer <https://www.mcgi.state.mi.us/wetlands/mcgiMap.html> If you open the map and zoom to your township and then click on the "wetland" tab and "high potential restoration" tab you can see suitable restoration areas in your township. The red and yellow areas are the best for restoration. There is \$100,000 available to help with design, purchase, signing, etc. Also low interest loans are available.

Minor Projects

There is the potential to streamline permitting of project approval where approval is likely. The State has two documents that define examples where disruption is minimal. Projects would still receive staff review. However, time, \$\$, and energy could be reduced (delineation, essentiality determination, and Environmental Commission review)

We are still exploring whether our Township has the ability to grant minor permits.

The State Documents detailing minor and general projects can be found here:

- https://www.michigan.gov/documents/deq/wrd-minor-project-categories_555829_7.pdf
Applicable to wetlands: 10, 16, 17, 18, 29, 31, 32, 34, 38, 39, 40, 44, 45, 47, 48
- https://www.michigan.gov/documents/deq/wrd-general-permit-categories_555828_7.pdf
Applicable to wetlands: G, H, M, N, P, S, U, V, Y, CC, DD

Planning Staff Comments

Comments from Planning will be sent separately.

Other

What might we do to support green infrastructure and other ecological landscaping, green building, LEED-related amenities, low-impact development, etc.) in addition to our Wetland Use Permit process? (Proactive vs. Reactive)

2019 Goals (draft)

| | Environmental Commission |
|-----------------------------|---|
| Goals for 2019 | Revise Wetland Ordinance |
| | Continue Green Themes - -Sustainable paving options -Green Burial -Red Cedar Cleanup |
| | Review WUPs |
| | |
| | |
| Accomplished in 2018 | Green Themes: Topics* |
| | Provided comment on WUPs |
| | Green Communities Recognition - -Meridian received Silver Level |
| | New Student Rep- Aparna Krishnamurthy |
| | Regular communication with staff and commissions: Planning, Brownfield Redev., Land Preservation, Energy Team, Green Team, etc. |

STAFF UPDATE

| | Summary |
|---|---|
| Recycling | <ul style="list-style-type: none"> Recruiting sponsors & organizing logistics for Spring Recycling Event: Apr 27 Green Team Met to discuss volunteer, site plan, training, etc. Home & Garden Show with Regional Recycling Groups |
| Rain Garden & Native Plantings | <ul style="list-style-type: none"> Rain barrel and compost bin sale planned for March Discussed native landscaping with John Anderson of Conservation Connection. He may help convert mowed areas to pollinators/low maintenance landscapes. Bids were received for a small rain garden in front of the solar array. |
| Energy | <ul style="list-style-type: none"> Completed 1-yr report on the climate action plan |
| Outreach | <ul style="list-style-type: none"> A “green” outreach campaign will be planned for 2019 to include utility bill inserts. Please share ideas for topics. |
| Green Gazette | <ul style="list-style-type: none"> Current and past issues can be found here. Subscribe here. Please send ideas to Harvey@meridian.mi.us |
| Other | <ul style="list-style-type: none"> Prepared summary of activities for Annual Report (see below) |

2018 Annual Report (draft)

CLIMATE SUSTAINABILITY

Staff, with support from Meridian Energy Team, the Environmental Commission, the Green Team, and others have prepared a full report on progress on Meridian's Climate Sustainability Plan. This report details progress in six areas:

- Energy Efficiency
- Renewable Energy
- Recycling and Waste Reduction
- Transportation
- Water Management
- Monitoring and Evaluation

This report highlights initiatives such as:

- **Solarize Meridian:** The Meridian Energy Team worked with the Lansing Area Solar Users Network (LaSUN) and local civic organizations and houses of worship. There were 11 workshops held in Meridian Township, East Lansing, and Lansing that reached 272 persons. In addition, there was a workshop in Delta Township that reached 18 persons. There was a significant increase, 19 new solar projects (88.6 kW), in residential solar electric systems in Meridian Township in 2018. The number of residential solar systems doubled. While not all the new installations should probably be attributed to the Solarize Meridian project, it is reasonable to assume that the project was a major influence in increasing the number of solar installations in the township.
- **Solar Array:** Installation of a 20 KW photovoltaic system was completed at the corner of Marsh and Central Park Drive. This system provides 8% of the electricity needs of the Municipal Building. Real-time solar energy production can be found at <http://bit.ly/meridiansolar>.
- **Meridian Recycling Events:** Two major recycling events were held in the spring and fall of 2018. Over 150,000 pounds of household items, electronics, old paint, medicines, household hazardous waste, and other materials were recycled, reused, and/or safely disposed of. More than 1600 residents participated along with 165 volunteers.

View the first year report at <http://www.meridian.mi.us/residents/township-services/recycle-go-green/energy-climate-initiatives> as well as the original Climate Sustainability Plan.

Environmental Programs & Awards

Green Community Award

Meridian received the "Silver" level recognition in the 2018 Michigan Green Community Challenge. This program is implemented by the MTA, MML, and MAC.

Wetland Protection

The Meridian Environmental Commission reviewed and provided comment on Wetland Use Permits during 2018. In addition, the Environmental Commission held several public "Green Theme" presentations on topics ranging from PAHs (coal-tar based asphalt sealants), green development, wetland banking, renewable energy, and others.

Community Gardens

Meridian Township provided support to local community gardens through a partnership with the Greater Lansing Food Bank's "Garden Project." Together, we supported 10 community gardens with plant starts, seeds, and many other important resources to help our gardeners be successful in growing food for their families. The latest report can be found here: <http://www.meridian.mi.us/residents/township-services/recycle-go-green/community-gardens>

Student Sustainability Initiatives

In addition to Recycling Events, students became involved with initiatives such as a Green Infrastructure Project and maintenance of the "Hidden River Roundabout." [This project helps reduce run-off, control pollution, attract pollinators, and build neighborhood involvement and pride.](#)

Other Educational and Outreach Initiatives

Staff published 12 issues of the Green Gazette, a newsletter on environmental topics. In addition, staff participated in regional recycling, environmental, and sustainability-related education and outreach in partnership with groups such as R2C2 (Regional Recycling Coordinating Committee) and Local First Mid-Michigan. In addition, utility bill inserts to educate residents about proper disposal of fats, oils, grease, non-flushable wipes, and other sewer clogging materials. An insert on proper mowing and water-saving landscaping suggestions was also distributed.

GREEN THEME SCHEDULE AND TOPICS

| | | |
|-------------------------|--|--|
| Jan 9 Nelson Room | Garry Rowe | "An Update on the Ingham County Groundwater Survey and Important Issues for Well Head Protection Management." |
| Feb 6 | Karim Chatti | Pavement Preservation |
| Mar 6 | Tom Frazier (MI Twp Assoc./MTA)? - invited | Green Communities (tentative) |
| Apr 3 | | |
| May 1 | Wanda Bloomquist (Williamstown Twp) | Green Initiatives in Williamstown Twp. (Green Zone District, Red Cedar Clean-Up, Green Burial) |
| Jun 5 | | |
| Jul 10 | Aparna Krishnamurthy (tentative) | Student Environmental Initiatives (tentative) |
| Aug 7 | | |
| Sep 4 | | |
| Oct 2 | | |
| Nov 6 | | |
| Dec 4 | | |
| | | <p>Ideas</p> <ul style="list-style-type: none"> • Green Infrastructure • Wetland Issues Person – model ordinances – Elise Tripp? State Bank Program (Mark Pennington) • Blue Trails -- (large county grant) • Salt: Suggested by Rebecca Essleman • Radon (Susan) • EL's Sustainable Building Ordinance – Green Building, Low Impact Development • 100% Renewable Goal of Traverse City – Kate Madigan (John) • Ecological Landscaping – Bill Schneider – WildType; John Anderson – Conservation Connection • Wayfinding: (related to our 2018 goals) • Greenspace Plan • Climate Sustainability - review ordinances • Relation between Greening and Economic Development/ attracting green businesses – incentives for green development • Collaboration with the Land Preservation Advisory Board • Green chemistry (Ned) • Green Businesses <ul style="list-style-type: none"> ○ (Hopcat has a landfill/waste diversion is 90%) ○ Buddies' composting food waste https://livegreenlansing.org/scraps-to-soil/ <p>Others? Possibly a "Green Panel" of business people</p> |

View Past Green Themes: <https://www.youtube.com/watch?v=6qFiWiZQA9A&list=PLYCL9BFEG5RX5LMXKoAde3LCmdRhwrCF>

ENVIRONMENTAL COMMISSION ROSTER (2019)

BILL MCCONNELL (Chair) (12/31/19, 3 year term) mconn64@msu.edu

Dr. William McConnell is a faculty member in MSU's Department of Geography, Environmental, and Spatial Sciences. He currently manages an international multi-institution research project related to food security with the Center for Global Change and Earth Observations. More <http://geo.msu.edu/people/mconnell-william/>

LINDA BURGHARDT (12/31/21, 3 year term) LBurghardt@comcast.net

Linda Burghardt is on the Board of Directors for Art in the Wild, a nonprofit dedicated to protecting our water resources. She has served as an Analyst with the Senate Natural Resources and Environmental Affairs Committee and has worked as an Insurance Underwriter on policies covering underground petroleum storage tank systems and clean-up of contaminated sites.

NED JACKSON (Vice Chair) (12/31/20, 3 year term) jackson@chemistry.msu.edu

Ned Jackson teaches and performs research at MSU in the Department of Chemistry.

<https://www.chemistry.msu.edu/faculty-research/faculty-members/james-e-ned-jackson>

J. JAMES KIELBASO (12/31/19, 3 year term) kielbas3@msu.edu

Jim Kielbaso is a Professor Emeritus from Urban Forestry and Arboriculture in MSU's Department of Forestry. He currently serves on the Land Preservation Board. https://www.canr.msu.edu/people/james_kielbaso

APARNA KRISHNAMURTHY (12/31/19, 1 year term) (Student) aparnakrish9@gmail.com

Aparna Krishnamurthy is a junior at Okemos High School. She serves as Okemos Action Captain for Eco-friendliness. She also is active on the Meridian Green Team.

KIRK LAPHAM (12/31/21, 1 year term) laphamK@gmail.com

Kirk Lapham is a Legal Policy Specialist and Regulatory Affairs Officer at Michigan Department of Natural Resources.

<https://www.linkedin.com/in/kirk-lapham-6a723661>

SUSAN MASTEN (12/31/21, 3 year term) masten@msu.edu

Dr. Susan Masten is on the faculty of MSU's Department of Civil and Environmental Engineering.

<https://www.egr.msu.edu/masten/home>

JOHN SARVER (12/31/20, 3 year term) johnsarver3@gmail.com

John Sarver serves on the Environmental Commission and the Meridian Energy Team. He is a retiree who worked for the Michigan Energy Office for 35 years developing programs and policies related to renewable energy and energy efficiency. John has been a township resident for over 40 years.

Vacant (1 year term) (Student)

STAFF:

LEROY HARVEY 517-505-2809 5151 Marsh Rd. Okemos, MI 48864 harvey@meridian.mi.us

LeRoy Harvey serves as an Environmental Program Manager with Meridian Township and is engaged in a variety of energy, recycling, and other initiatives. www.re-news.net

Application Form: <http://bit.ly/commission-app>